APRIL 1943 APRIL 1943

WORLD'S GREATEST BUILDING PAPER



American Builder National Home Week Houses





How to Plan, Build and Sell Homes Today

How's this for Proof

OF CELOTEX STAMINA AND DURABII

R. J. MCMULLEN, VICE PRESIDENT OLEAN LUMBER & SUPPLY CORPORATION A J MCMULLEN PRESIDENT AND MANAGES

LUMBER, SHINGLES, SASH AND DOORS 301 SOUTH UNION STREET PHONE 6666

OLEAN, N. Y.

Feb. 17, 1949

Mr. Marvin Greenwood General Sales Manager The Celotex Corp. 120 So. La Salle St. Chicago, Ill.

While talking with a customer and explaining the merits of Celotex board, I showed him the use our company has made of Celotex. He seemed very much interested so I thought perhaps the Dear Sir; Celotex Corp. would also be interested.

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Our company has handled Celotex since 1921, being one of the first dealers in this vicinity, and my personal opinion is that it is hard to beat Celotex for interior or exterior installation of any kind.

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This letter is evidence of the kind of performance that has made Celotex the Greatest Name in Insulation.

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Acousti-Celotex • Flexcell Expansion Joints • Hard Board

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

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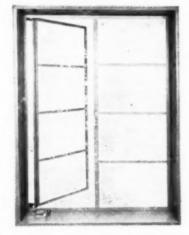
HOMES

Beautiful Graefield Terrace Apartments in Birmingham, Michigan, are equipped throughout with 551 graceful Fenestra* Steel Residence Casements and inside Casings. Fenestra Windows are standardized for economy...cost less to buy and to install... yet are available in a large variety of types and sizes. Bonderized, warp proof, firesafe, easy-opening, they are washed, screened and storm-sashed from inside. Inside metal casings (such as the one framing the 2414N Casement below) eliminate need for stools, aprons, brick mold...cut job-time and cost. Also Bonderized for protection against rust.

Architect: Merle William Hogan, Detroit. Contractor-Builder: Harry Durbin.

"Advantages of your Steel Casements are now GREATER THAN EVER"

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One of several types of Fenestra Casements with inside metal casings, used by Mr. Durbin in Graefield Apartments.

HARRY J. DURBIN
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DETROIT 23. MICHIGAN

Durbin Built

Movember 16, 1948

Detroit Steel Products Company 2250 East Grand Blvd., Detroit 11, Michigan

Attention of Mr. W. J. Torbet

Centlemen:

As you know, the windows throughout the Graefield Terrace, which has just heen completed, are your residential casements with steel inside

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ments for over twenty years, and their advantages are now creater than ever, now that you are in a position to furnish the complete unit.

Yang & who HARRY J. DURBIN

HJD:f.

BUILDERS ASSOCIATION OF METROPOLITAN DETERMINED

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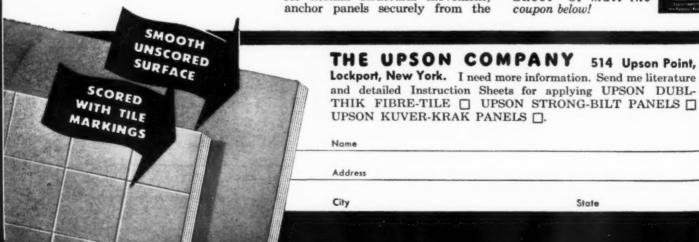
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DOWS

CREEN

Publisher's Page



How to Lick the Socializers

SINCE ATTENTION has been drawn on this page in American Builder, and editorially in its sister publication, Railway Age, to the rapid progress being made in rubbing out the middle class, by depriving it politically of its income, and of the disposition of the property it still owns—many letters have come in saying, in effect: "What you say is true, but what can I do about it?"

Two successful social movements suggest the answer, viz., the repeal of prohibition and the progress of the group known as Alcoholics Anonymous.

Prohibition held on politically long after it had lost any possible claim on majority opinion, because so few people "voted the way they drank". A veteran politician, who long supported the Dry cause although he personally opposed it, explained his action this way.

"The Drys are loyal. They are Drys first. As long as I vote Dry, they don't bother how I vote on any other question. The Wets, on the contrary, are Wets last; they are Republicans or Democrats or almost anything else first. I gain a lot of votes and lose none by voting Dry. I would lose a lot of votes and gain none by voting Wet."

The Wets, however, eventually became so exasperated at the hypocritical effrontery of political control of their drinking that they began to ask whether a candidate was wet or dry first, not last; and when

the politician's stand on that one issue became the primary criterion which swayed the voter's choice, prohibition vanished practically overnight,

Socialism would vanish with similarly startling speed, if people who oppose socialization of their own businesses would begin acting and voting against socialism of any kind, anywhere, or for any purpose. The delusion that a body politic, organized as free enterprise, can remain healthy in most of its members, while it nurses along the cancer of socialism in only a few of its organs, needs to be extirpated first. When that delusion is expelled, surgery on the socialism will follow fast enough-provided the infection has not gone so far it cannot be successfully excised.

Now to consider the other example, Alcoholics Anonymous: That organization has succeeded in curing thousands of otherwise hopeless drunks (1) because it does the reforming on the individual from within instead of applying coercion on him from without, and (2) because at least one of its founders, and quite likely both of them, got the idea that their "cure" would remain permanent only so long as they worked sacrificially to help other people in trouble similar to their own.

This tradition has been continued in the organization—the members strive to make others "free" (in their case, of alcoholism) not for purposes of economic gain, but because they realize that working for the freedom of the other fellow is the only way they can stay free themselves. By contrast, most of the yells against socialism come only from the people under socialist attack.

So far, the doctors object to being taken over by the government, but builders and steel manufacturers and railroad men are little if any concerned. They do their complaining only when socialism attacks them. And the socialization of transportation does not worry the builders or the steel people any more than railroad men lose sleep for fear steel or housing will be socialized.

When business and professional men and other members of the "bourgeoisie" begin to vote and otherwise behave as genuine antisocialists, even at some self-sacrifice, instead of merely applauding anti-socialist abstractions they hear at dinners, then the Reds will take to the woods as fast as the Drys did in the dying days of the Hoover regime. When they begin to oppose socialism for the "other fellow," gardless of some immediate gain they may get when socialism takes the other fellow over, then there will not be a microscope powerful enough to detect the socialism left on this side of the Atlantic. But this had better happen soon, because with socialism as with cancer, there comes a time when it is too late to operate.

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The author of the above editorial is James G. Lyne, co-editor of Railway Age and president of the Simmons-Boardman Publishing Corp.



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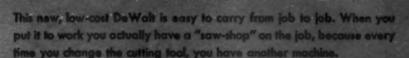


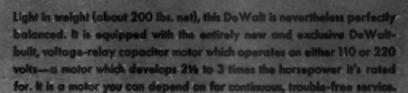
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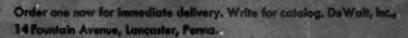


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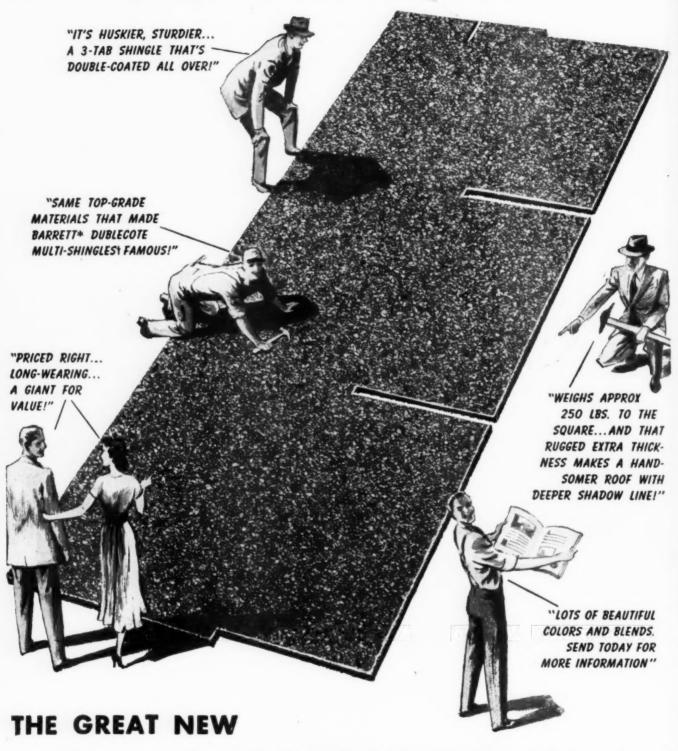


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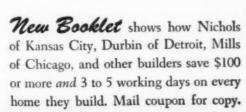
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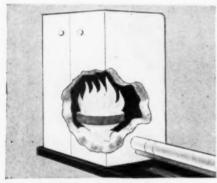


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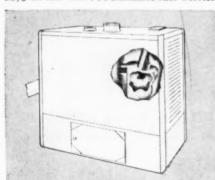
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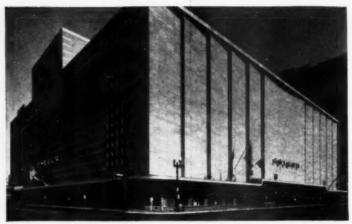
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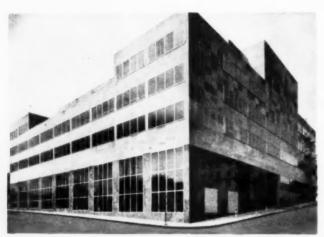
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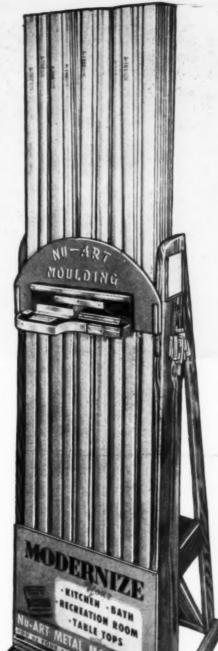
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45 -6 ST, LENGTHS

A-713 COUNTER EDGE
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A-715 OUTSIDE CORNER
15 -6 FT, LENGTHS

A-715 INSIDE CORNER
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A-716 COUNTER EDGE
15 -6 FT, LENGTHS

A-717 COUNTER EDGE
15 -6 FT, LENGTHS

A-718 BATTEN STRIP
18 -6 FT, LENGTHS

A-718 BATTEN STRIP
18 -6 FT, LENGTHS

A-718 DATE OUTSIDE CORNER
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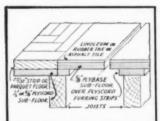
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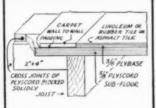
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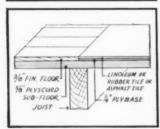
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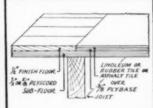
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SNAP-ON BLADE COVER

A Clipper feature that lets you cut wet—without getting wet! An outstanding safety feature for both wet and dry cutting operations.



Nine New 1949 Clipper models available on FREE TRIAL and each with outstanding features for smooth, fast and economical Clipper Cutting Action. See why Clipper, the original masonry saw, is acclaimed OUTSTANDING! See the "Adjust-A-Cut" Control; "Snap-On" Blade Guard Cover; and the "Streamlined" Ball Bearing Conveyor Cart. Remember—not 1 but NINE MODELS!



... Any Where!"



FREE

Nine Clipper Models available on TREE TRIAL Priced from \$195 . . . Shipped Direct from Coast to Coast Clipper Factory Branches

CLIPPER MANUFACTURING CO., 2808 WARWICK, KANSAS CITY 8, MO.

PER MANUFACTURING CO., 2808 WARWICK, KANSAS CITY 8, M Send TODAY information on the FREE TRIAL Offer and complete

literature and prices on the 1949 Clipper Masonry Saws.

COMPANY

STREET ZONE ZONE

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MANUFACTURING COMPANY
KANSAS CITY 8, MO.

Foctory Branches
hia • St. Louis • Cleveland • Austin, Tex. • San Francisco





Many remodeling and construction costs come down to earth — and quality goes up — when you build with time-proved Masonite brand hardboards.

There's one for every purpose. In remodeling this kitchen, for example, smooth, durable Masonite Tempered Presdwood was used for the upper walls, flush doors and work surfaces. Standard Presdwood made the cabinets — for Presdwood is one of the finest woods for cabinets at any price. Masonite Temprtile for wainscoting looks, wears and cleans like tile. And — for

the dramatically unusual – rugged Masonite Leatherwood, with the look and feel of fine, Spanish grain leather, was used for the inviting breakfast nook.

Seven different Masonite hardboards are now available. They haven't gone up in price like some alternate materials. Easy to install and with virtually no maintenance cost, they are the practical answer to today's home and commercial building problems. These "woodmade-better" hardboards are available at lumber and building supply dealers. Masonite Corp., Chicago 2, Ill.

MASONITE® PRODUCTS

STANDARD PRESDWOOD
TEMPERED PRESDWOOD
BLACK TEMPERED PRESDWOOD
LEATHERWOOD • TEMPETILE
PANELWOOD • TEMPERED DUOLUX

"Presdwood" and "Temprtile" are registered trade-marks. "Masonite" signifies that Masonite Corporation is the source of the product.

FREE SAMPLES!

MASONITE CORPORATION

Dept. AB-4, 111 W. Washington St., Chicago 2, III.

Please send me samples of Masonite hardboards and interesting literature about their application.

Name.

Address

PRADE

YOU CAN GET IT FAST!

No more "out of stock" headaches in the height of your screening season. Now you can get Firestone Velon screening fast — no matter how fast your stock is going! Firestone Industrial Products Division can make immediate shipment on receipt of order to wholesale and jobbing outlets in all major trading areas. That means quick service for you — with only a normal inventory. That means you needn't lose a single sale for Firestone Velon screening, so heavily in demand today.





YOU CAN SELL IT FAST!

Just mention Velon's advantages to your customer and you have all the extra values that make a customer out of every prospect:

velon screening won't rust — can't bleed or stain the house front ... never needs painting ... safe to leave up, all year round.

VELON SCREENING WON'T ROT—rigorously tested and proved in all climates. Impervious to sun, cold, salt spray, heavy wind and water.

VELON SCREENING WON'T BULGE OR SAG — amazing impact resistance and perfect recovery. This 235 lb. man actually stood on a Velon screen for 15 minutes yet it returned to its original shape almost immediately.

And Velon is priced competitively low for volume business. Ask your wholesaler for free Velon screening merchandising aids — consumer folders, window streamers, counter cards, newspaper mats and Velon screening samples.



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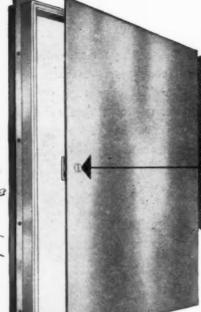
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nd III.





Every house needs at least one Milcor Steel Access Door. Public buildings need hundreds!

A SCREW DRIVER DOES THE TRICK!

Instant Access to Key Points in plumbing, heating, electrical, and refrigeration systems

Ready to install • No special framing • Painted with rust-inhibiting prime cost • Concealed hinges • Flush, screw-type lock • 11 Sizes — from 83/6" 83/6" to 243/6" x 363/6" • For plastered or non-plastered walls • With or without expanded metal wings.

Milcor Steel Access Doors (flush with wall)

k better, last longer, cost less

— and earn you credit for delivering the best iob at the least cost!

Yes, these handsome flush-type Milcor steel access doors actually cost less than the old type!

For one thing, they cut labor costs and building time. They are installed quickly and easily-flush with the wall or ceiling. You can paint or paper right over them. And they eliminate costly special construction required by other types of installation.

These advantages speed up your jobs - and increase your profits.

When you deliver the kind of job that adds to your reputation as an "up-to-the-minute" builder, your customers are satisfied and stay satisfied. Recommend and use Milcor steel access doors on every job — it pays in more ways than one!

INLAND STEEL PRODUCTS COMPANY

FORMERLY MILCOR MILCOR STEEL COMPANY MILWAUKEE 1, WISCONSIN

Baltimore 24, Md. • Buffalo 11, N.Y. • Chicago 9, Ill. • Cincinnati 25, Ohio Cleveland 14, Ohio • Detroit 2, Mich. • Kansas City 8, Mo. • Los Angeles 23, Calif. New York 22, N.Y. • Rochester 9, N.Y. • St. Louis 10, Mo.

F-322H



This 20-page Milcor Manual with complete information on the Milcor Metal Lath Products line - is yours for the ask-

ing! Tear out cou-

INLAND	STEEL	PROD	UCTS	COMI	PANY,	4101	West	Burnham	Street,	Milway	kee 1	I, V	Visconsi
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WHEN WOMEN SEE THESE "Dress-uppa"

YOUR HOUSES SELL FASTER!

Trust women to notice accessories that dress up a house! Trust women to remember them, talk about them... and decide because of them which house they'll buy.

NuTone has a "Package" of "dressups"—all tremendously appealing to women. A handsome illuminated brass door knocker...luminous push buttons ... tuneful door chimes (instead of nerve-wracking door bells)... and quiet ventilating fans to carry off kitchen heat and odors.

Add this "Package" to your new houses—and to houses that are slow-selling. A small investment—a minor addition to the mortgage—but it can make a lot of difference!



Write for full information to NuTone, Inc., Dept. A-49, 1451 Merchandise Mart, Chicago 54, Ill.



NUTONE DOOR CHIMES

14 models, including de
luxe chime-and-clock
combinations. \$3.95
to \$69.95, list.

NUTONE TRANSFORMERS



16 and 24 volts; can't burn out.

NUTONE DOOR KNOCKERS 2 models; \$2.95 and



\$4.95, list.

NUTONE PUSH BUTTONS



6 styles, all luminous they glow at night. 35c to \$2.50, list.

NUTONE VENTILATING FANS



5 models, built-in, for wall or ceiling. \$24.95 to \$34.95, list (incl. Fed. ex. tax)

SALES OFFICES: NEW YORK CHICAGO • LOS ANGELES SEATTLE • DALLAS



"WONDERFUL! A VENTILATING FAN!"

MODEL NV-18—Wall model, quiet and efficient—for all wall thicknesses. Fan starts automatically as shutter opens.
List \$24.95 (incl. Fed. ex. tax)



"SEE! A KNOCKER THAT LIGHTS UP!"



THE BEACON—Illuminated cast-brass doorknocker, with name plate and keyhole spotlight. Needs no wiring. List \$4.95

THE CONTINENTAL—Beautiful and tuneful! Ivory plastic cover, with satin-brass tubes. Two notes, front door; one note, rear. List \$12.95

farmers, homebuilders and industry are asking for lumber





build with lumber that's

Farmers use "PENTA"-protected wood for barns, hen houses, culvert bridges, and fence posts.

Homebuilders appreciate and want "PENTA"treated wood because it safeguards their investment. Also, "PENTA"-protected wood can be obtained with a water repellent which increases the wood's dimensional stability and its resistance to check.

In industrial and commercial building, the lower maintenance cost, longer life and greater salvage value of "PENTA"-treated lumber is becoming increasingly important.

Pentachlorophenol is the chemical that protects wood from decay and termites. Build with "Penta"-treated wood and add to your reputation as a quality builder. Build with "Penta"-treated wood and build greater customer satisfaction.

For information about where to get "PENTA" solutions and "PENTA"-protected lumber, write Dow. Dept. PE 39.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN





America

REYNOLDS ALUMINUM PRODUCT'

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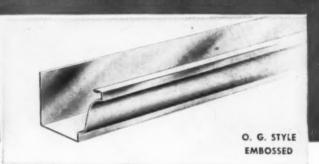


low-cost feature that helps sell houses!



REYNOLDS Lifetime ALUMINUM

Gutters and Downspouts



- Rustproof Permanence at about half the cost of other rustproof materials
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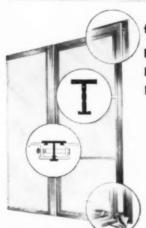
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 Exclusive Reynolds Stipple-Embossed Finish

A sales feature that prospective homeowners can see and you can advertise, for very little more than the cheapest gutters. No painting, ever. No staining of walls. Simple slip joints, no soldering. Complete fittings. Half-round also available in plain finish. See your dealer or write for folder. Reynolds Metals Company, Building Products Division, Louisville 1, Ky. Offices in 32 principal cities.



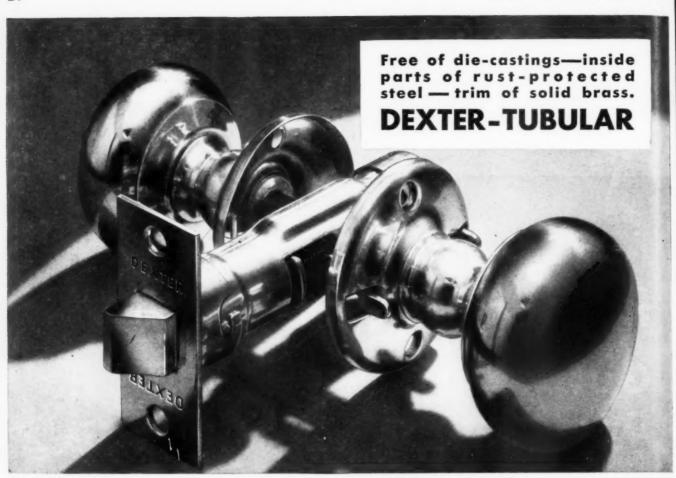
WORLD'S LARGEST PRODUCER OF
ALUMINUM BUILDING PRODUCTS



for any type of construction
REYNOLDS ALUMINUM
RESIDENTIAL CASEMENT,
FIXED and PICTURE WINDOWS

Four-point superiority: mechanical joints, extra deep muntins, full range of mullions, wide-opening extension hinges. 98 types and sizes. Write for 16-page booklet.

Reynolds Metals Comp 2003 So. Ninth St., Lou	oany, Building Products Div., isville 1, Ky.
Please send detailed liter	rature on the products checked:
*Corrugated	*5-V Crimp
*Snap-Seal Roofing	*Weatherboard Siding 🗌
Industrial Corrugated	*Gutters and Downspouts
*Built-up Roofing	*Flashing Windows
Reflective Insulation	*Stipple-embossed finish!
Name	



Dexter's are the Real Mc Coy!

DEXTER'S HAVE TO BE BUILT to stand up and take it, for they have a lifetime warranty to live up to. That's why nothing but the genuine stuff goes into them. Solid brass for all outside trim - rust-proof cold-rolled steel for interior working parts - not a die cast or other soft metal part in the whole product.

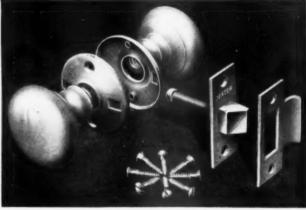
That's the way it is with Dexter's - all the way through, in every detail. There's something genuine about Dexter's which makes them a pleasure to install - and when you add to this the many exclusive mechanical features, you find Dexter's are tops from every angle.

NATIONAL BRASS COMPANY

Grand Rapids, Michigan

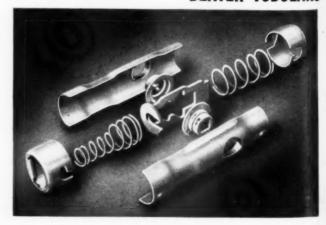
MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario



SOLID BRASS, outside ALL STEEL, inside

that's the way it is with DEXTER-TUBULARS



Fingerall mad and pre tool!

Radial . fine costs a Distrib today!

Here's why Radial SKIL Saw

is your best bet for fast...precise

.. high-production sawing!



Radial SKIL Saw is tops . . . for speed . . for precision . . . for ease of operation. Finger-Tip control... quick, simple adjustments all made from the front) . . . constant accuracy and precision! They're all yours with this better

Look at its features! Everything about Radial SKIL Saw adds up to peak production ... finest performance . . . lowest maintenance costs and long service. Ask your SKIL Tool Distributor to demonstrate Radial SKIL Saw today!

ALL THESE SUPERIOR DETAILS SAVE STEPS...SAVE TIME... SAVE MONEY FOR YOU!

FAMOUS RETRACTABLE ARM

- · Slides freely on double-row ball bearings!
- Stays accurate for precision cutting. Extra bearings at top front and lower rear, easily adjustable for true alignment!
- More room for job set-ups because sawing head moves out of the way!
- Clear-view sawing with layout marks always in sight!

FRONT ADJUSTMENT OF ALL CONTROLS

- · Retractable elevator handle in front.
- Quick adjustments for all cuts without leaving operating position.



DOZENS OF SPECIAL FEATURES

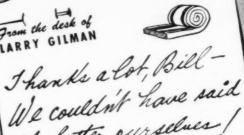
- One-piece saw guard . . . easy to remove without tools.
- Plunger pin locks for rapid adjustment of sawing head.
- · Felt wipers keep arm rails always clean.
- · Flexibility to make all compound cuts.
- · Ripping scale mounted on arm for accurate measurement.
- Tapered wedge lock for fast, precise location of straight and both right and left 45° cut-offs.
- Enclosed dustproof motor.
- · Unique design.
- · Finest engineering.
- · Top quality workmanship and materials.

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LEVITT AND SONS, INC MANHASSET, N.Y.

From the desk of

it better our selves



WILLIAM J. LEVITT PRESIDENT

I think you should know why we selected Gentlemen:

Cellulite for the insulation of all the houses that we

intend to build in 1949.

First, from past experience, we have found that it does as good or better a job than any insulation

Second, our mechanics like it because it's we have ever used before. easy and pleasant to work with and causes no damage to

Third, our supply house and transportation their hands. problems are minimized because it is easily compressed into small space for storing and transporting and immediately fluffs back to its original thickness when workmen are ready to install it.

Fourth, it is so light and easy to install that tangible savings result from its use.

There is a fifth reason - and equally important. Our business relationship has been so pleasant that it contributes immeasurably to the smoothness of a rather complicated production line. Good luck to you, and the best of everything in 1949.

The Gilman Brothers Co. Gilman, Connecticut

and have you heard about Cellulite's new acoustical blankets in 64" and 72" widths?

MAIL THIS COUPON TODAY!

THE GILMAN BROTHERS COMPANY, Gilman 6, Connecticut

We're interested in receiving information about:

Cellulite Cotton Insulation

Cellulite Acoustical Blankets for sound deadening

Firm...

Street Address.... Zone.....

You can be SURE.. IF IT'S
Westinghouse



make your house the Hit of National Home Week

G-10064

Yes, there's still time to plan for the rugged selling days ahead . . . to make your Exhibit House the Hit of the Home Show.

Here are ideas developed especially to help you do that.

First, a folder that explains a program designed to help you cash in on the great National Home Week activity . . . the planning help that's available . . . and the merchandising package that will help you pull the crowds to your house . . . then sells

them the outstanding features and superior values you offer.

Second, a planning book that tells what people want in new houses, gives planning data to help you develop plans that meet those demands most effectively, efficiently and economically, describes and illustrates four houses where these principles have been tried and proved.

Yes, there's still time. Mail the coupon today. There's no obligation, of course.

Better Homes Bureau Westinghouse Electric Corporation P. O. Box 868, Pittsburgh 30, Pa.

Please send my free copies of "How to Make Your House the Hit of the Home Show" and "Planning Book for Electrical Living Homes".

Name_____

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 2. CMC 3½S TILTER—The greatest value in the tilting mixer field. "Figure 8" mixing means better concrete in less time.

 3. CMC SUPER "6" "HOE TYPE" MIXER—Often pays for itself on first job. Triple action hoes with adjustable blades. Does FINEST mixing.

 4. CMC DUAL PRIME CENTRIFU-
- CMC DUAL PRIME CENTRIFU-GAL PUMP Unmatched self-priming speed, Exclusive CMC dual jet construction assures peak per-formance.
- CMC KOST KUTTER—Makes more cuts faster. Does the work of much heavier saws. Sturdy versatile Streamlined.
- CMC RADIAL SAW—Finger tip control and widest range of uses have made it the favorite among builders. Does better, easier!
- CMC DUMPOVER CARTS—Easier wheeling easier dumping. No dead-weight to lift when dumping. Built to last longer.

THE QUALITY LINE SINCE 1909.

CMC equipment is sold and serviced by leading equipment distributors everywhere.

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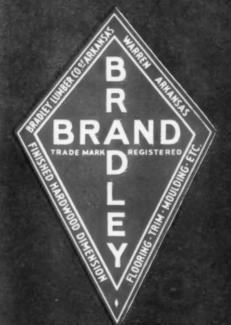
... we shall continue using it at every opportunity."

BRADIE V

STRAIGHT-LINE
HARDWOOD FLOORING

"Our first experience with Bradley Prefinished flooring was in 1942. That we made a wise decision in selecting it was proved repeatedly as our work progressed. No time was required for sorting, its tongue-and-groove fitting accelerated laying. Pre-finished at your factories, it required no machine sanding and finishing after it was laid. Its durable, uniform and lustrous finish, subjected to the constant handling and work of the mechanics in laying, was restored simply by cleaning.

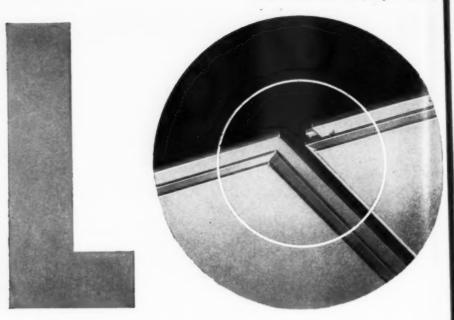
"Since then we have used Bradley Pre-finished Oak Flooring for about 95 jobs, with the same satisfactory experience. Needless to say, we shall continue using it at every opportunity."



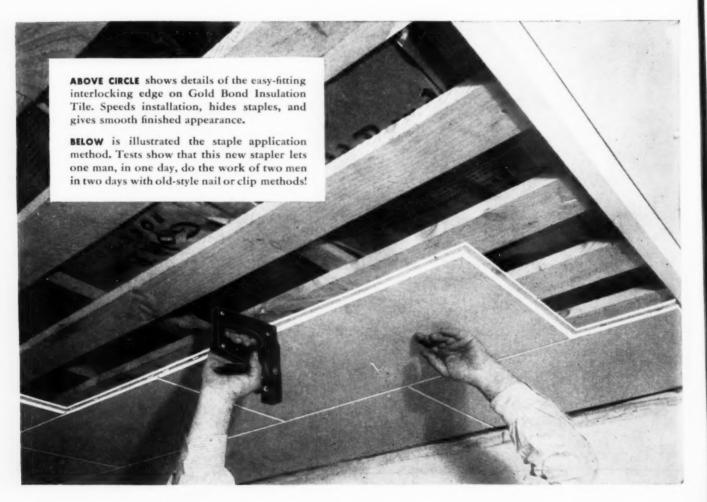
STANDARD of COMPARISON in PRE-FINISHED HARDWOOD FLOORING

What's behind this contractor's good opinion of Bradley Pre-finished is covered in our Data and Specifications. Write now for your copies.

BRADLEY LUMBER COMPANY of Arbentos.



YOUR CEILING JOB COSTS



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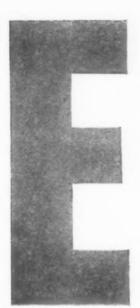
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WITH GOLD BOND INSULATION TILE!

HERE'S a real time saver—a new method of applying fibre insulation tile in a fraction of the usual time. The new interlocking edges of Gold Bond Insulation Tile permit rapid installation with a staple gun instead of old-style clips or nails. Cuts your application cost in less than half—a mighty important factor in competitive bidding.

For modern ceilings that insulate, beautify and quiet noise, the new ivory-coated Gold Bond

Insulation Tile is your best bet from every standpoint. No hammer marks, no burred tile edges if you use a staple gun which you can buy or rent from your local Gold Bond Dealer. Staples are completely concealed by the easy-fitting, interlocking edges.

You will like this new Gold Bond Insulation Tile and so will your customers. It's ideal for stores, restaurants, bowling alleys, offices, in fact, for just about every type job. Available now at your local Gold Bond Dealer's.

NATIONAL GYPSUM COMPANY BUFFALO 2, NEW YORK

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboard, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

You'll build or remodel better with Gold Bond

Johns-Manville GIANT STRIP

... the heavier, more rugged asphalt shingle that

"Stays put"

Here is a shingle that gives greatly increased protection against wind, weather, and fire. It is the J-M Giant Strip, so named because it is extra thick and extra heavy. The entire surface has extra coating of selected weather-resisting asphalt, in which colorful, fireproof, mineral granules are uniformly embedded. This results in a thicker, more rugged shingle—one that "stays put" and lasts longer.

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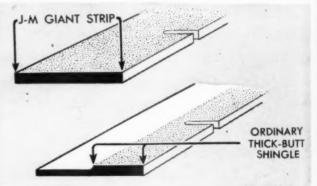
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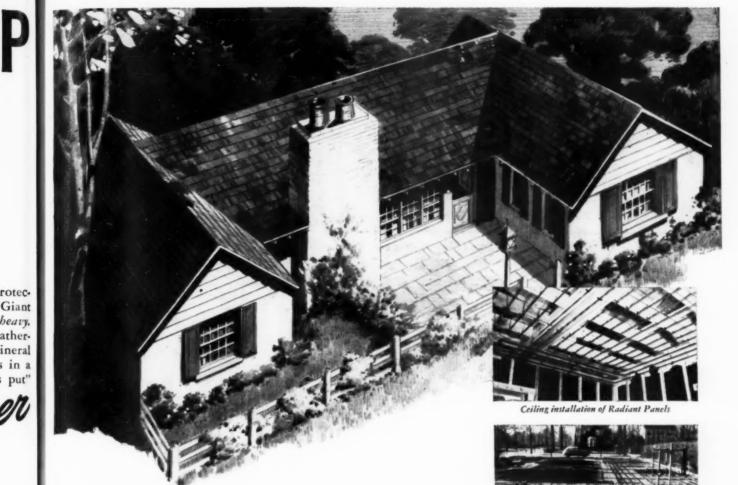
Sketch shows how extra protection is built into the J-M Giant Strip. Note that the entire surface—not just the exposed portion—is covered with an extra thickness of asphalt and fireproof granules. On the ordinary thick-butt type of asphalt shingle only the butts have the extra thickness.

When you sell J-M Giant Strip Shingles, you provide the homeowner with a product backed by 90 years of roofing experience. And it has the Johns-Manville name, recognized by millions as the mark of quality in building materials. For further details, write Johns-Manville, Box 290, New York 16, N. Y.



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HOW TO HEAT A MODERN HOME ...

the Modern Way

It's easy to understand the swing to B & G Hydro-Flo Radiant Panel Heating . . . it offers exclusive advantages with instant appeal to both the man and woman of the house.

This heating system is hidden away in the floor or ceiling—nothing visible—nothing to prevent complete freedom of furniture and drapery arrangement. It spreads an overall blanket of radiant warmth—draftless—soft and soothing as Spring sunshine.

All this luxurious comfort and convenience is provided at low operating cost. B & G Hydro-Flo Heating automatically adjusts itself to every change in the weather—never overheats—never burns fuel needlessly.

And not least, B & G Hydro-Flo Heating furnishes an all year 'round supply of hot water—24 hours a day—plenty for automatic washers, showers, every household use.

For the complete story, send for free booklet, "Capture the Sun with B & G Hydro-Flo Heating."



Radiant Panels installed in floor



Hydro-Flo Radiant Panel Heating

BELL & GOSSETT CO., Dept. AY-11, Morton Grove, Illinois

*Reg. U. S. Pat. Off.

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YOU'RE safe when you use the complete line of Vitrified Clay Products. Their basic material - clay - is the only material which resists successfully the deteriorating action of acids, alkalies, chemicals, rust and other corrosive elements. Vitrification at fusing temperatures bonds this imperishable clay into strong, homogeneous pipe you can count on for any sewerage or drainage service.

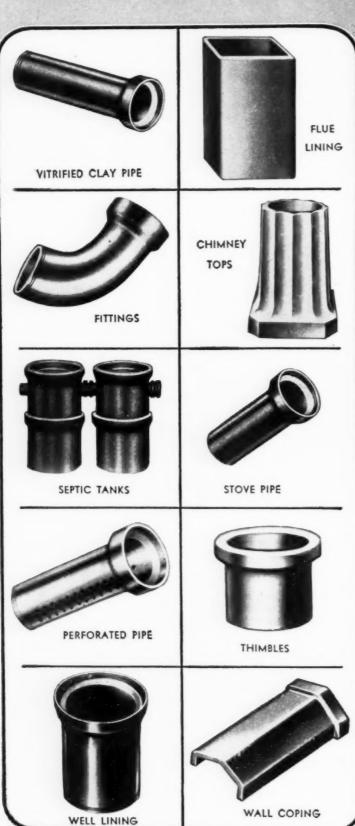
You'll earn a reputation for top-notch craftsmanship and service by using Vitrified Clay Products wherever possible. Properly installed, they give generations of trouble-free service!

See your building supplies dealer, or send your specific questions to the nearest association office.

NATIONAL CLAY PIPE MANUFACTURERS, INC.

703 Ninth and Hill Bldg., Los Angeles 15, Calif. 1105 Huntington Bank Bldg., Columbus 15, Ohio522 First National Bank Bldg., Atlanta 3, Ga.100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.





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GET BETTER TILE AND BLOCK-WORK with BRIXMENT!

Tile or block-work offers very little protection against the penetration of water, unless both inside and outside head joints are completely filled with mortar.

In laying clay tile, or concrete or cinder block, even when they are used only for back-up work, especial care should be taken to secure full head joints on both the inside and the outside edges of the unit. Either of the following two methods may be used:



Method 1. Full head joints should be thrown onto



Method 2. A full head joint should be thrown onto one edge of the tile in place and also onto the opposite edge of the tile to be placed.



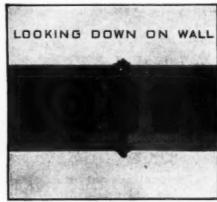
Enough mortar should be used to cause excess mortar to ooze out of the joints on both sides of the tile.



Method 1. Full head joints should be thrown onto both edges of the block to be placed, or-



Method 2. A full head foint should be thrown onto one edge of the block already in place and also onto the opposite edge of the block to be placed.



Enough mortar should be used to cause excess mortar to coze out of the joints on both sides of the block.

One of the reasons bricklayers prefer Brixment mortar is the way it *sticks* to the tile or block, as shown above. It "stays put." The bricklayer does not have to stoop to the board for more mortar. You get a stronger, more water-resistant wall. Brixment mortar is

easier to work, saves time, effort, and money. In addition, it has higher water-retaining capacity, greater bonding quality, is more durable. It is this *combination* of advantages that has made Brixment the largest-selling masonry cement on the market.

America



Eliminates Leakage

THE PATENTED vent which relieves pressure below the seat in a Thrush Flow Control Valve is only one of the features which make this valve outstanding. It has no tight fitting guides. There is nothing to bind or stick. Shut-off is positive. It is easy to install ... and eliminates the need for a union. The convenient manual adjustment does not interfere with normal operation. With all its important advantages, the Thrush Flow Control Valve costs less than competitive valves. It is used with a Thrush Water Circulator to control circulation and prevents wasteful overheating in automatic Forced Circulating Hot Water Heating Systems. See our catalog in Sweet's or write Department G-4.

H. A. THRUSH & COMPANY . PERU, INDIANA



FORCED CIRCULATING

Summer-Winter Hot Water Heat





G

Advertised in the **POST**

pre-selling your clients for you!

This advertisement in the April 16 Saturday Evening Post creates acceptance for Stanley Floating Door Equipment. Cash in on the profitable combination of demand, POST selling power, and Stanley prestige in hardware.

The new homes you build will be more desirable and easier to sell if garage doors are equipped with Stanley "Swing-Up" Sets. Five out of five home buyers want this modern, low-cost door equipment. And to clients the name Stanley on hardware means lasting satisfaction.

The "Swing-Up" Set shown is just one of four Stanley Floating Door Equipment models. It is recommended for better class residential and light commercial openings. Two sizes: 7' to 8' wide, 6' 6" to 6' 11½" high; and 7' to 8' wide, 7' to 8' high. Comes complete with detailed instructions for installation.

Build better, sell faster—specify and install "Swing-Up" Floating Door Equipment by Stanley, the greatest name in door hardware. The Stanley Works, Garage Door Dept., New Britain, Conn.

*Copyrighted



Reg. U.S. Pat. Off.

HARDWARE . HAND TOOLS . ELECTRIC TOOLS . STEEL STRAPPING
THE GREATEST NAME IN DOOR HARDWARE



The Robert W. Vahlbergs' house, Oklahoma City; designed by the owner-architect; built by Robert Parks, Oklahoma City;

...in an architect's DREAM HOUSE



(Installation by White & Messer Plumbing & Heating Co., Oklahoma City)

The dream house of the Bob Vahlbergs sprawls comfortably on a wooded slope. It is rooted to earth by a seventy-five-foot-long slab of concrete. From its wall of glass, framing a view to the South, to the Bryant Boiler that activates its unseen radiant coils, it is as modern as tomorrow.

Architect Vahlberg has definite ideas about the things a house should have. He believes firmly in open planning to create a feeling of space; materials that are natural-looking and complementary to the setting of the house; wide expanses of glass, to capture the outdoors for indoor enjoyment; automatic heating that provides the warmth of Spring sunshine, no matter what the weather outside.

In the year or so of its existence,

the house has proved these things, a more, to the Vahlbergs. It gives the everything they want for their livin enjoyment... their comfort. That, in word, is the proof. For, by and larg the components of anybody's dreathouse add up to just one thin comfort.

We like to think of architects in Bob Vahlberg as men who deal comfort, because that's a big part our business, too. It's a kind of partnership... with creative architecture and Bryant quality heating goin hand-in-hand to provide the stuff the dream houses are made of.

And we're mighty pleased that many of these dealers in the mud sought commodity called comfo consider Bryant Automatic Health part of their stock in trade.

Let the pup be furnace many ... and water boy, too!

AUTOMATIC HEATING

BRYANT HEATER DIVISION
AFFILIATED GAS EQUIPMENT, INC.
Cleveland, Ohio Tyler, Texas

"I'll let the Pup be Furnace Man"

says ROBERT PARKS, builder of the Vahlberg House, Oklahoma City

"Bob Vahlberg's house taught me a lot; not only about modern house construction, but about heating as well. I'm sold, and my family is sold. We're going to have a house like it . . . and ours will have a Bryant, too."



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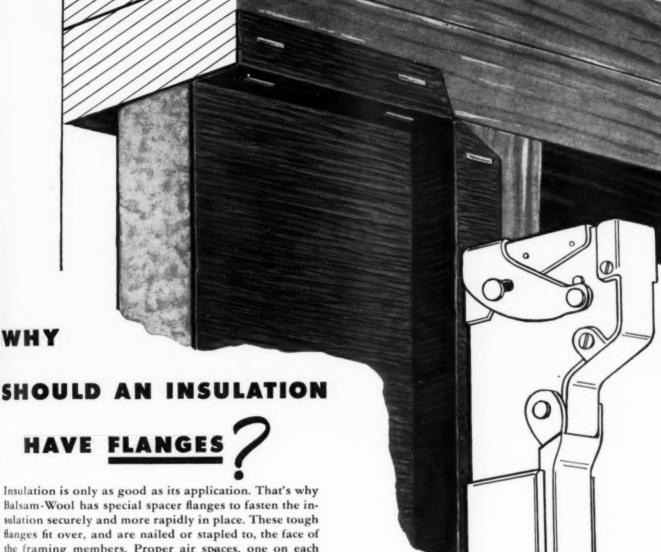
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Balsam-Wool has special spacer flanges to fasten the insulation securely and more rapidly in place. These tough flanges fit over, and are nailed or stapled to, the face of the framing members. Proper air spaces, one on each side of the insulating mat, are also provided by these flanges. The result: a sealed, tight, foolproof application for maximum Balsam-Wool insulating efficiency!

Balsam-Wool, the completely sealed insulation, constantly adds latest scientific developments to its own time-tested features . . . combining practical "on-the-job" experience with laboratory research. The ever-increasing popularity of Balsam-Wool as the complete insulation results from these advantages to you and your clients:

You'll want to specify Balsam-Wool on your next job . . . for it's the insulation that stays put for life. Send today for your complete set of Balsam-Wool Data Sheets in A.I.A. folder.

- Continuous, Integral Vapor Barrier
- Sturdy Wind Barriers
- Double Air Spaces
- Special Spacer Flanges
- Rot and Termite Treatment
- Highly Fire Retardant
- Rigid Quality Control

32 Data Sheets provide hard-to-get facts on insulation application problems . . . mail the coupon now!

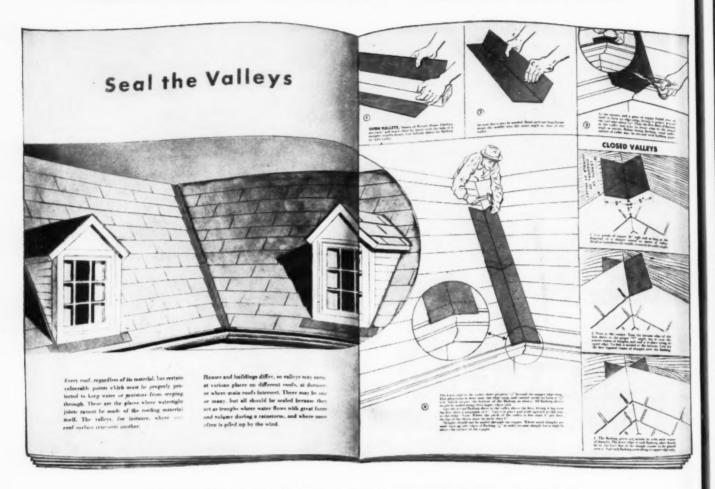
BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD*

*REG. U. S. PAT. OFF.

Wood Conversion Company Dept. 119-49, First National Bank Building St. Paul 1, Minnesota Please send me a set of Balsam-Wool Application Data Sheets.

Ameri

How to seal the valleys with REVERE HOME FLASHING



A reproduction ($\frac{1}{2}$ 3 the size of the original) of 2 typical pages in the Revere Home Flashing Instruction Book. You get a copy of this instruction book in every package of Revere Home Flashing.

REVERE HOME FLASHING is a new packaged system for use in valleys and flashing on low-cost houses. Based on a special size, special temper and special gauge of sheet copper, it is packaged, complete, ready to install.

Each package contains 10 sheets of this special copper, cut to 18" x 48"; 200 bronze nails; and complete, illustrated instructions for installation. Simply follow these step-by-step instructions and you are sure of protection that is good for a great many years.

Revere Home Flashing provides low-cost, easy-to-install weatherproofing not only for wall joints, but also at valleys, doors, windows, chimneys, and other roof joints. In addition, being copper, it adds an important selling point to the house; it shows that the builder uses quality material; and it assures complete satisfaction for the owner. And it does all this at such low cost that you'll want to start using it right away.

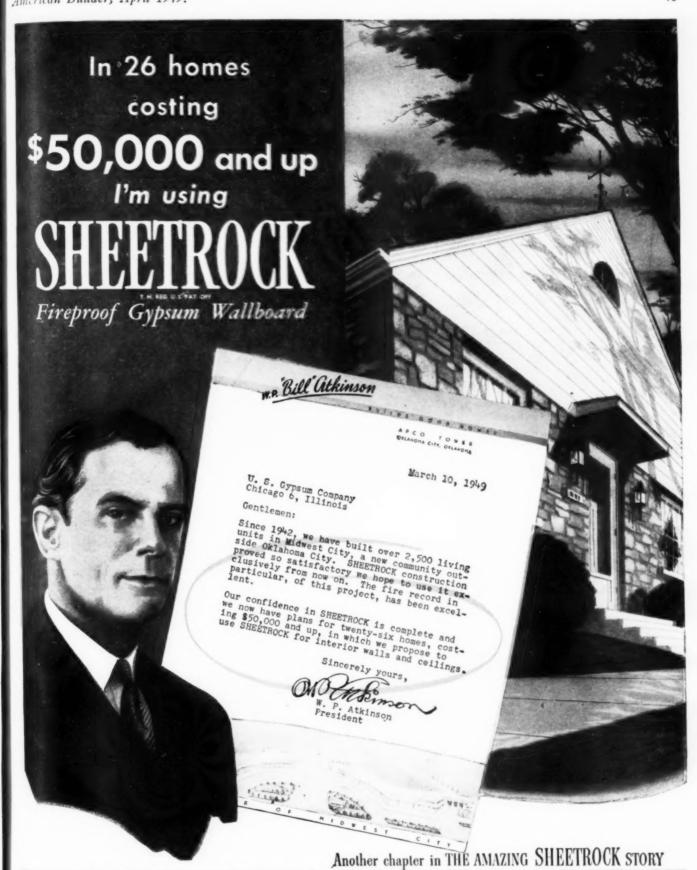
Your building supply dealer has Revere Home Flashing in stock or can get it for you promptly. Ask him about Revere Home Flashing today.

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801 230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everyubere.





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Fas Building . For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint



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WALNUT



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BLEACHED



SHEETROCK TILEBOARD



"I've proved that Weldwood Paneling makes money for builders . saves money for buyers!" ogsberger

"Homes are easier, more economical to build . . . easier, more profitable to sell . . . when you use Weldwood Plywood"

Here's a man with a real "success story" . . . and Weldwood Plywood helped him write it.

When Mr. Moosberger completed the house above, several other new homes in the same vicinity were also offered for sale. Visitors streamed into the home with Weldwood paneling, while the others were almost deserted. Repeated comments expressed admiration for the living room, paneled in silver gray oak Weldwood . . . and the two bedrooms, one paneled in knotty pine, the other in Weldtex.

Price was deliberately withheld, and prospects asked to estimate before being quoted. Out of hundreds of visitors, only two underestimated the value. All the others felt the house to be worth considerably more than the established price.

Mr. Moosberger feels most of the credit is due to Weldwood. This fine paneling, he says, gives such a feeling of luxury and quality that visitors simply cannot believe the moderate cost he was able to quote.

Add "buy-appeal" like this to the actual structural advantages Weldwood gives you, and it becomes a material you simply can't afford

Don't fail to include Weldwood paneling in the plans for the new homes you build. It makes more money for builders . . . saves money for buyers.

Weldwood Plywood is sold by lumber dealers everywhere.



BUILDING CRAETS cheverly, Md.

Northeast corner of living room and entry, showing oak Weldwood paneling, and unusual corrugated glass partition.



Oak Weldwood makes a fitting frame for an expansive picture window in the Moosberger house, shown above.

Plywood WELDWOOD

Weldwood Plywood and Mengel Flush Doors are products of

UNITED STATES PLYWOOD CORPORATION New York 18, N. Y.

THE MENGEL COMPANY Louisville 1, Ky.

Distributing units in Baltimore, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore, Richmond, Rochester, San Francisco, Seattle. Also U. S.-Mengel Plywoods, Inc. distributing units in Atlanta, Birmingham, Dallas, Houston, Jackson-ville, Kansas City, Kans., Louisville, New Orleans, San Antonio, St. Louis, Tampa. In Canada: United States Plywood of Canada, Limited, Toronto. Send inquiries to nearest point.

Weldwood* Hardwood Plywood Douglas Fir Weldwood California Pine Weldwood Mengel Flush Doors Weldwood Fire Doors Weldwood Flush Doors Overhead Garage Doors

Tekwood* (paper-faced plywood) Protekwood Weldwood Glue* and other adhesives Weldtex* (striated plywood) Decorative Micarta* Flexwood* Firzite* and Satinlac*

*Reg. U. S. Pat. Off.



Weldwood Plywood is made in both Interior and Plastics and Wood urea resins and other approved bonding agents; the Welded for Good latter with phenol formaldehyde synthetic resin. 1949.

ng oak glass SCHLAGE

...first name in cylindrical locks



Maine's Colby College at Waterville

a Schlage installation of heavy-duty cylindrical locks.

Architect: Jens Frederick Larson

Plymouth Design illustrated at left was used in this classic New England College.

SCHLAGE LOCK COMPANY SAN FRANCISCO - NEW YORK



The Truscon Series 138

DOUBLE-HUNG STEEL WINDOW

trim, smart, streamlined





You bet it's the best buy in the window field! These Truscon Steel Windows help you sell your homes and buildings, because window beauty combined with the ultimate in operating simplicity plays an important part in clinching house sales! You'll find, too, that you have universal acceptance because Truscon Double-Hung Steel Windows are structurally-correct!

And, of equal importance, you'll like the downright *economy* of these famous windows—not only is their initial cost

low, but because they are pre-hung, pre-fit, pre-weatherstripped and pre-adjusted, their installation cost is also amazingly low! They won't warp, rot, stick or shrink either before or after installation. And, in the most popular types and sizes—you can order direct from our local stocks.

Weights and cords are not used. Operation is controlled by motor-type spring balances equipped with tapes of Enduro stainless steel. Each window is completely factory weatherstripped in stainless steel. Screens and storm sash of the simplest and most economical type are available.

Shade, drapery, curtain or venetian blind fixtures, of standard types are easily attached to the interior side, in holes provided in all units.



New Lite ature! Send for new catalog complete with installation details and specifications on Truscon Steel Windows for every type of residential use.

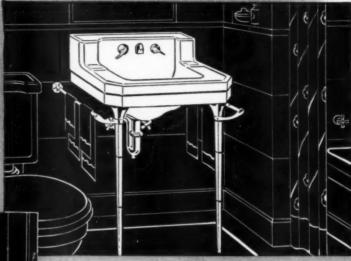
TRUSCON STEEL COMPANY

Subsidiary of Republic Steel Corporation

Manufacturers of a Complete Line of Steel Windows and Mechanical Operators • Steel Joists • Metal Lath • Steeldeck Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors.

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The BROMLEY, smart and modern, adds beauty wherever it goes! A shelf-back, square bowl lavatory with front overflow and anti-splash rim—available with ar without chrome-plated legs and towel bars. Ideal for either powder-room installations or master bathrooms. Plate #G-132.

The new RICHLEDGE—only 19th x 17th overall—has all the big lavatory features. This compact wall-living unit will fit into the smallest bathrooms as well as powder rooms. Small in size and low in price, the Richledge is perfect for the modern home. Chrome-plated legs and towel bars available. Plate #G-152. Richledge also obtainable in 18" x 15" size.



Hi gh-back, well-hung lava-tory, illustrated on right, is de-signed for all types of domes-tic or commercial installations. Has rectangular bowl plus reer outlet, open overflow and anti-splash rim. Plate #G-120.



Richmond Vitreous China Lavatories Versatile in Application— **Enduring in Satisfaction**

Shelf-back, high-back or slab; wall hung, legs or pedestal-Richmond builds them all. Homes, apartments, office or factory-Richmond designs for them all.

The long-lasting finish and smooth, modern lines of Richmond lavatories guarantee jobs you will be proud of-that will delight your customers.



RICHMOND RADIATOR CO .- AFFILIATE OF REYNOLDS METALS CO.



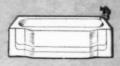
Richmond's whiter-white enameled cast iron sinks are at home in any kitchen.



Vitroous China



Gas Beilers



eled Cast from Ware



Winter Air Conditioners Gas-Cast iron or steel Oil-Steel

See your wholesaler or MAIL COUPON TODAY

Richmond Radiator Company 19 East 47th Street, New York 17, N. Y.

Please send me further information and details on Richmond Vitreous China Lavatories. No obligations, of course.

Name.... Company.....

Address....

This part of the house sells



This is just what
I've been looking for.
Let's buy the house!



the WHOLE HOUSE faster!

It's a fact—and it's proved every day...

New homes sell faster than ever when your prospects see the General-Electric Electric Sink—combining the G-E Automatic Dishwasher and G-E Disposall!*

Why not? All that toil-saving, leisure-creating convenience costs the home buyer only \$1.67 extra each month †

Only \$1.67 a month never to have to touch dishwater again!—Never to have to handle pesty garbage!

"Packaged Mortgage" makes paying easy!



Those are sweet words to the homeseeker. Those are the modern dreamkitchen advantages home buyers want. And they're easily within the average family's reach with the "packaged mortgage" plan!

The "packaged mortgage" includes the cost of the G-E Electric Sink in the monthly payments for the house! No burdensome extra installment costs!

That's the dream-kitchen story General Electric is telling millions in Dishwasher and Disposall advertising.

*General Electric's trade-mark for its food-waste disposal appliance.

That's the dream-home bargain more and more home buyers insist upon. And that's the *selling* story that helps you make *quick* home sales!

Why not include these great electrical features in your new homes, renovations, and apartments?

What about cost?

It costs you *nothing* extra! The retail price of each appliance is added to the price of the house. You get the retail profit!

What about installation?

General Electric offers you the facilities of its Home Bureau in planning the installation of the G-E Electric Sink!

What about selling help?

General Electric service *starts* with planning . . . and *follows through* to a complete advertising and merchandising program that speeds the sale of your new homes!

Write to General Electric Company, Appliance and Merchandise Department, Bridgeport 2, Conn.

Quick! Here come those home buyers with the G-E gleam in their eyes right now!

†Covers estimated financing charge.



DISPOSALL

Means Good-by to Garbage Automatically



AUTOMATIC DISHWASHER

Does the Dishes by Itself

You can put your confidence in-

GENERAL ELECTRIC

More Glass means

Here's additional proof that when you select from "Pittsburgh's" line of glass products and use "Pittsburgh's" experienced crews of workmen, you'll get a good-looking, practical front. And because today's business-wise merchant is familiar with the name "Pittsburgh," you'll find your selling job is made a lot easier simply by mentioning "Pittsburgh."







Because it is practical and long-lasting, as well as extremely good looking, Carrara Structural Glass is well-suited for walls and wainscots of kitchens and bathrooms. For splash panels, too...behind stove or lavatory...as a fireplace surround or for corner shelves or window sills—Carrara is certain to please customers. They'll like its pleasing colors (10 to choose from). Its easy cleaning. And the fact that it won't check, craze, fade, or absorb odors.

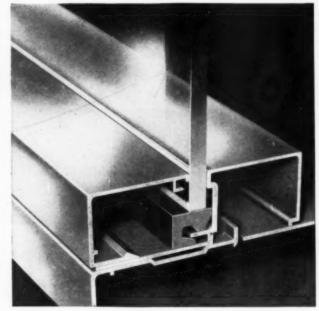
1949

s modern buildings

here's proof from Pittsburgh"



Pittsburgh Plate Glass Company has developed an instrument which makes it possible to "read" the thickness of a silver film at any point on a mirror. The remarkable instrument thus insures more uniform mirror silvering quality. This development is another practical result of "Pittsburgh's" energetic program to improve the quality and the performance of all "Pittsburgh" products. And it is another reason that you can always recommend "Pittsburgh" products with confidence.



This double-faced rectangular sash (Pittco De Luxe 15C) is for use where store front design calls for a plain surface, rich in tone and gloss. This sash is especially suitable for installations above the first floor level, for the sash can be reversed and necessary replacements can be made easily from inside. It can be used with any Pittco De Luxe moulding. Its strength, and clear, sharp profiles are assured by its extruded method of manufacture.

* Design it better with

Pittsburgh Glass

"Builders Kit" which includes illustrated literature showing how you can use glass effectively on all types of jobs in which interested.

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Pittsburgh Plate Glass Company
2095-9 Grant Building, Pittsburgh 19, Pa.
Please send me without obligation your "Builders Kit" of illustrated literature.

Name

Address. State:

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Mational Electrical RE-O-PRENE NON-METALLIS

The FIRST non-metallic sheathed cable made for use in wet locations, and conforming to standards of Underwriters' Laboratories, Inc.

NEOPRENE SHEATH

TOUGH-DURABLE

NEOPRENE INSULATION

FIBERGLAS BRAID OVER
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NON-ABSORBENT — FIREPROOF

SPECIAL RUBBER SPACER MEETS U.L. STANDARDS FOR SAFETY

FOR ADDED
TENSILE STRENGTH

SMALLER DIAMETERS

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NEOPRENE INSULATION

COPPER CONDUCTORS

TWO STEPS TO INSTALL

- 1. Remove outer sheath
- 2. Strip conductor

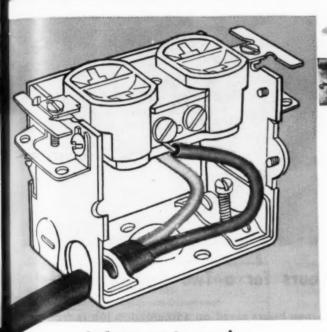
No kraft paper wrappings to be removed.

NE-O-PRENE Loomwire becomes a complete system of Farm Wiring when used with National Electric "**Redege**" Device and Switch Boxes and "**EZ**" Cable Connectors. All listed and Approved by Underwriters' Laboratories, Inc.

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SHEATHED CABLE

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At Last—an improved

NEOPRENE-SHEATHED LOOMWIRE that

SEALS OUT

FUMES—FLAME—MOISTURE
OIL AND GREASE

RESISTS

ROT—ACIDS—MOLD
MECHANICAL ABUSE
Approved for 600-Volt Service



IDEAL FOR:

Barns, stables, hatcheries, incubators, milk houses and other locations where moisture, ice, ammonia-laden air, rot, fungus and drastic weather changes are destructive to other approved types of wiring. **NE-O-PRENE** Loomwire is designed to avoid increased fire insurance rates.

NE-O-PRENE Loomwire construction is simple. The rubber spacer between conductors cushions the pressure of hammer-driven staples—prevents conductor damage. Smaller outside dimensions provide more room in device and outlet boxes.

NE-o-PRENE Loomwire is stronger, tougher, more flexible, more resistant to abrasion than ordinary non-metallic sheathed cable. MOISTURE CANNOT PENETRATE THE NEOPRENE SHEATH.

NE-o-PRENE Loomwire is now available in 2-and 3-conductor cable, sizes 14, 12, and 10. Standard coil lengths in cartons.

Sold exclusively through Electrical wholesalers.



National Electric

1329 CHAMBER OF COMMERCE BUILDING PITTSBURGH 19, PA.

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'Jeep' Digs a Foundation in Less Than Half-a-Day



This two bedroom house requires a trench 35' by 31' and 42" deep for a concrete footing. The Jeep-A-Trench does the excavating in 3 hours—a saving of 32 man hours over ordinary digging methods. After trench is completed, boom is raised to transport position and the unit is ready to move to the next job in a hurry.



Four-wheel-drive masters the mud of building sites to take tools and materials right to the job. In conventional 2 - wheel - drive, the Universal 'Jeep' hustles along on the hard roads to run errands of all kinds.

Three Hours For a Two Bedroom House!

Thirty-two man hours saved on a foundation job is typical of how the 'Jeep' speeds up construction. Comparable savings are effected on tile and pipe trenchings... for the 'Jeep' propelled-trencher digs up to 5 feet deep, at the rate of 300 feet an hour.

The trench digger is only one of many useful construction tools that can be operated by the 'Jeep'. From three power-take-off points it drives such varied equipment as generators, compressors and pumps. This versatile vehicle also does many jobs that would ordinarily require a tractor.

Contractors and builders everywhere rely on the rugged 4-wheel-drive Universal 'Jeep' to get through to jobs and speed up work. Consult your nearest Willys-Overland dealer today for complete information.

4-Wheel-Drive Teep

WILLYS-OVERLAND MOTORS . TOLEDO 1, OHIO . MAKERS OF AMERICA'S MOST USEFUL VEHICLES

Cut Your Costs On Every TypeOf Construction Job ... With

Here are typical examples of the up-to-the-minute design, long-lasting construction and smooth, dependable performance now proving to contractors all over the world that there's more worth in a Blue Brute. Your nearby Worthington-Ransome Dealer has the complete line of Blue Brute Construction Equipment. Write for his name.

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WORTHINGTON PUMP AND MACHINERY CORPORATION

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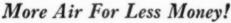
Concrete Costs Less!

Count on Blue Brute Portable Mixers for lower-cost concrete on every job. Quickly spotted and towed, and with such features as smooth, positive gearand-pinion drive . . . high-carbon, Timken-equipped drum rollers . . . and Ransome's famous mixing action, they're sure bets for speedier, better mixing.



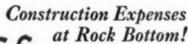
Water-Handling Cheaper!

You'll move more water - faster, farther, easier with a Blue Brute Self-Priming Centrifugal Pump. Rugged in every detail, with fast pickup, extra reserve power and high resistance to rust, corrosion and ordinary wear. Built in A.G.C. sizes to A.G.C. standards.

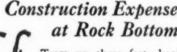


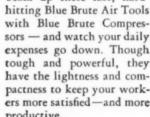
Get all the air-power out of every drop of fuel with a Blue Brute 60' Portable Air Compressor. Strong, light and efficient, it provides constant, dependable, economical air supply through its easybreathing Worthington Feather* Valves, Other Blue Brute Compressors, from 105' to 500'.

. REG. U.S. PAT. OFF.



Team up these fast, hardhitting Blue Brute Air Tools with Blue Brute Compressors - and watch your daily expenses go down. Though tough and powerful, they have the lightness and compactness to keep your workers more satisfied - and more productive.

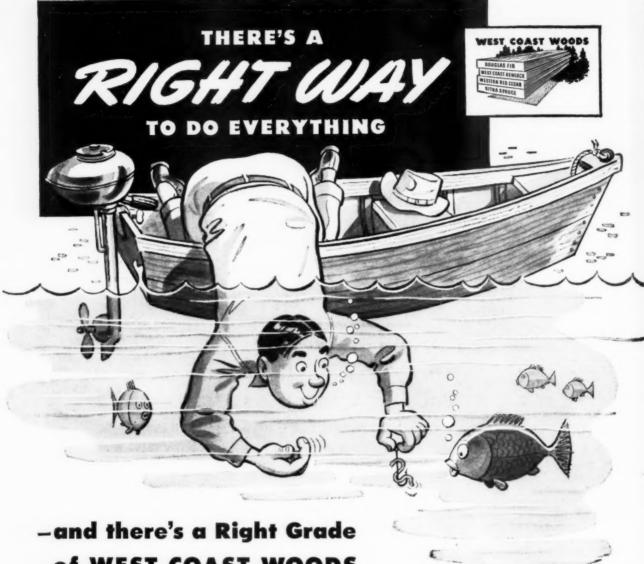






CONSTRUCTION JOB, IT'S A BLUE BRUTE

Americ



of WEST COAST WOODS for every building use

Get the upper-hand on low-cost housing. Specify the least expensive grade of lumber suitable for your purpose...and that meets the requirements of sound construction. Today's price difference between grades makes real savings possible . . . while retaining all the qualities which make wood your client's favorite home building material.

It will pay you in every way to build with the right grades of time-tested West Coast Woods.

Timber is a crop...and grows on tree farms. Lumber, properly used, represents less than 20% of the cost of the average home.



This illustrated booklet "How to Build Well and Save Money," is being offered to your prospective customers through national advertisements. You'll want

to get a copy for your own information.

SEND COUPON **TODAY FOR YOUR** FREE COPY!



WEST COAST WOODS 1410 S.W. Morrison, Room No. 643 Portland 5, Oregon

Please send me your booklet, "How to Build Well and Save Money."

Name_

IT'S SMART TO BUILD WITH THESE

WEST COAST WOODS

il 1949.



IESE CURTIS "READY-MADES"

help you whittle down

BUILDING COSTS

When stock design woodwork achieves custom-built distinction—at lower cost—that's news for today's home planners and home builders! And that's why Curtis Woodwork is used so extensively in giving home-owners "more for their money." For Curtis Woodwork makes excellent design and quality construction available for any size or type of home. Here are a few reasons why:



You can give any room the proper focus without expensive special millwork. This Curtis mantel, for example—Design C-6040—has a pleasing simplicity which gives it dignity and beauty. Designed for Curtis by Cameron Clark, Architect.



You can see the sure touch of a master designer in this charming Curtis entrance—Design C-1730. H. Roy Kelley, Architect. Curtis entrances assure lasting value and beauty.



A fine cabinet for the home owner who wants something out of the ordinary—Curtis Design C-6515. The Architect was Russell F. Whitehead. Curtis offers 18 styles of cabinets.

A NEW Curtis Development – PRESPINE

Developed after years of research and testing, Curtis Prespine is a new wood material for use in panels in Curtis doors and as an integral part of other Curtis Woodwork. Prespine has a hard, satin-smooth surface that takes paint and other finishes beautifully. Tough and durable, Prespine will not warp, check or splinter. It is 93% wood—and resembles in color the species wood from which it is made. Picture on right shows the beauty of Curtis doors with Prespine panels.



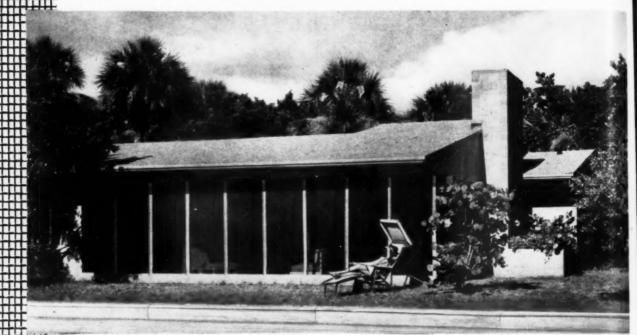
When in New York, visit the Curtis Woodwork Display at Architects' Samples Corporation, 101 Park Avenue.

MAIL COUPON for complete information

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•	CURTIS COMPANIES SERVICE BUREAU
	AB-4W Curtis Building, Clinton, Iowa
	Gentlemen:
	Please send me your book on Curtis Stock Architectural Woodwork.
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Why Florida Architect Chose LUMITE



"Our experience shows nothing else stands up like this plastic screening."

RALPH TWITCHELL RUDOLPH & TWITCHELL Sarasota, Florida

SPECIFICATIONS

EFFECTS OF ACIDS, ALKALIS AND SOLVENTS

—Essentially none.

NON-INFLAMMABLE — Will not support flame
... is self-extinguishing. Melting point,
340°F.

WATER ABSORPTION—Immersion 24 hours, less than 0.1%.

TENSILE STRENGTH, ULTIMATE (of filament)
—Up to 40,000 lbs. per sq. in.

IMPACT STRENGTH —Greater than conventional type screening.

INSTALLATION. Cut with ordinary scissors. Fold cut edges under ½". Tack or staple the screening smoothly and evenly every 1½". Being elastic Lumite will automatically draw itself into a snug, firm fit. For correct methods of machine framing, consult Lumite engineers.

Like thousands of other architects in localities where screening is subjected to severe climatic conditions, Mr. Twitchell has found that LUMITE provides the happy answer to screening problems.

Here is a screening that has absolute immunity to rust, rot, or corrosion. Neither high humidity, salt spray nor acid smoke has any effect on this amazing new plastic material. It cannot support mildew or fungus.

Because LUMITE is rustproof and corrosion-proof it cannot stain paint under windows . . . it need not be painted to prevent rusting.

LUMITE has greater impact strength than conventional screen material . . . it will never sag nor bulge, when properly framed. Punch it. It gives then regains its original shape.

LUMITE saves your clients money—costs little more than the cheapest screen and less than any other quality screening—only 11½-12¢ per square foot—retail.

Sold through hardware, lumber and building supply dealers and screen manufacturers.

Woven of saran

For further information, consult Sweet's File or write Dept. AB-2.

LUMITE DIVISION

Chicopee Manufacturing Corporation 47 Worth Street, New York 13, N. Y.

*Registered Trade-mark

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America

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THIS IS THE YEAR TO USE CREO-DIPT ZEPHYR RED CEDAR PROCESSED SHAKES

Lower priced wood sheathing has greatly increased the number of home builders who can afford Creo-Dipt Sidewalls

No substitute or imitations can match the individuality-the inviting rustic, homelike appearance of Creo-Dipt Zephyr Red Cedar Processed Shakes. With their rough, parallel grooves or ridges and distinctive long exposure, Creo-Dipt Zephyr Red Cedar Processed Shakes impart an appearance that ordinary smooth cut shingles can't approach. When stained, these grooves provide a pleasing gradation of different shades. Their heavy shadow line at butts and the wide variety of colors, that can't be duplicated by the limited colors available in imitation and substitute materials, add beauty and interest.



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NO SUBSTITUTES AND IMITATIONS CAN MATCH THE INDIVIDUALITY OF CREO-DIPT RED CEDAR SHAKES

PUBLIC LEARNING THAT IMITATIONS AND SUBSTITUTES DON'T HOLD UP

Home owners who have seen how imitation and substitute materials deteriorate, crack, chip, fade—prefer Red Cedar Processed Shakes initially stained and preserved at the factory with linseed oil base stain. When stained every five or six years they will outlast the house they cover.

FAR GREATER INSULATION EFFICIENCY THAN CLAPBOARD OVER SHEATHING

In most localities on an average new 3 bedroom house, Creo-Dipt Zephyr Red Cedar Processed Shakes and Creo-Dipt Zephyr insulating board applied over wood sheathing will have about 30% greater insulation efficiency than clapboard over wood sheathing. On a residing job the saving is even greater. When applied over clapboard they will save more than \$2,500 in painting and fuel bills over a 20-year period. This is figured on (1) 35% increase in insulation efficiency; (2) restaining shingles every 5 years v. repainting clapboards every 3 years.

DOUBLE WALL CONSTRUCTION PROVIDES GREATER INSULATION AND AN EFFECTIVE WINDBREAK



DOUBLE WALL CONSTRUCTION OF CREO-DIPT ZEPHYR SHAKES AND UNDERWALL OF SPECIAL INSULATING BOARD

Creo-Dipt Zephyr Red Cedar Processed Shakes can be used for (1) Single Coursing at shorter exposure; (2) Double Coursing, i.e., Zephyr Processed Shakes applied over an undercoursing of low grade shingles; (3) Double Wall, i.e., Creo-Dipt Zephyr Red Cedar Processed Shakes applied over an underwall of Zephyr asphalt treated, weather-resisting insulating board.

Because it saves labor, Double Wall construction usually costs no more than Double Coursing, and is far superior. The insulating board undercoursing comes in sheets 4' long—is easy to apply. Creo-Dipt Zephyr Red Cedar Processed Shakes are laid over this.

On new houses over wood sheathing, Double Wall construction has far greater insulation qualities than Double Coursing and, furthermore, provides an effective windbreak, the solid surface of Zephyr insulating board preventing the infiltration of air.



ANY CARPENTER CAN APPLY THEM

Unlike ordinary shingles which require cutting and fitting on the job, Creo-Dipt Zephyr Red Cedar Processed Shakes are already stained—have butts and edges trimmed so that edges are parallel and at right angles to the butt. The job is further speeded and simplified by the Double Wall method whereby the shingles are laid over an under wall of special insulating board.

BUILDERS SEE OPPORTUNITY TO INCREASE SALEABILITY OF HOMES

No other material holds so much charm for sidewalls as Creo-Dipt Zephyr Red Cedar Processed Shakes. No other material provides such color variations between roof, siding and trim. Buyers will cheerfully pay the slight difference in cost over ordinary clapboards when told the savings in painting and fuel bills.



TEMPLATE MAKES IT EASY FOR ANY CARPENTER
TO OBTAIN A TIGHT, CLEAN CORNER FIT

TEMPLATE MAKES IT EASY TO FIT CORNERS

A template inserted into every third carton of Creo-Dipt Zephyr Red Cedar Processed Shakes makes it easy to cut the insulating board to the proper angle for corners before it is applied, after which, when the shakes are applied, it is a simple matter to trim them to a tight, clean corner fit.

100 SQUARE FEET UNITS

Each unit includes outer wall Red Cedar Zephyr Shakes, a package of Zephyr backing board for Double Wall construction or undercoursing shingles for double coursing construction, plus sufficient special, small head, rust-resisting nails for recommended exposure.



CREO-DIPT ZEPHYR DOUBLE WALL UNIT

SEE YOUR CREO-DIPT DISTRIBUTOR

Let him show you the attractive colors and explain how easy it is to build more saleable homes with Creo-Dipt Zephyr Red Cedar Processed Shakes. When Their Eyes Say,
"That's Exactly
What We Want!"

YOU HAVE MADE A SALE!



THAT look of delight that comes on a prospect's face when she sees the gleaming beauty of a WRIGHT RUBBER TILE kitchen floor often means that a sale is made! As every builder knows, it is details like the appearance of a floor that make the difference between "Sale" and "No Sale."

When you use WRIGHT RUBBER TILE floors in kitchens—bathrooms—playrooms—halls—any room in the house, you are making your houses easier to sell. It is hard to believe what a difference a floor can make until you see the gleaming beauty of an actual floor of WRIGHT RUBBER TILE. Many builders who have adopted WRIGHT RUBBER TILE profited by quicker sales at higher prices per house.

But, even more important, such floors make every customer a permanent booster of your work—a booster at

WRIGHT MANUFACTURING COMPANY
P. O. Box 6567 Houston, Texas

the end of five years, ten years, twenty-five years! Actual service records indicate that even after a hundred years the floors will still be as beautiful as the day they were first laid down. It is the easiest of all floors to clean. It is quiet and exceptionally comfortable underfoot. It resists damage that makes other floors look old before their time.

Make sure you have every possible advantage during the competitive days ahead! Learn the full story of WRIGHT RUBBER TILE from your dealer or write us direct.

WHAT DOES IT COST?

Comparable in cost to standard gauge linoleum, WRIGHT RUBBER TILE is actually lower in first cost than many materials it replaces. Considering its advantages, it is easy to show a home buyer that it is the most economical floor he can buy.

WRIGHT RUBBER TILE

Floors of Distinction

It's NEW!..It's FREE

GOOD APPLICATION

MAKES A
GOOD ROOF
BETTER

A Practical Guide—How to lay Asphalt Shingles for maximum LIFE and ALL-WEATHER PROTECTION

Gives the "How" and "Why" of recommended good application practices.

WHEE AND HOW TO START A ROOF. It is non-innovated that horizontal and vertical state of the stat

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CORRECT MAILING. The number of rails per strip and the placing of the rails are both vital factors in good reed strip-learning. With three tob square bott strip shingles use a raily strip stri

SEND FOR THIS USEFUL POCKET-SIZE BOOK NOW!

Good Application Makes a Good Roof Better" is a booklet you will want for your own information as well as for the information of any fellow-workers or employees who may have to do with the sale or application of asphalt roofing products.

Prepared by the engineering committee of the Asphalt Roofing Industry Bureau after years of careful research and checking, this 24 page booklet provides a practical check list of the latest and most widely approved methods of laying asphalt shingles to assure maximum life and

maximum all-weather protection.

It gives step-by-step information with detailed diagrams on such things as deck preparation, valley construction, metal drip edges, eaves flashing strips, aligning shingles, proper nailing, cementing tabs for extra wind resistance, hip and ridge capping, etc. There are 24 interesting and helpful pages in this pocket-size book. Use it as a reminder or as a guide.

Write to the Asphalt Roofing Industry Bureau today for a FREE sample copy. Additional copies will be available through your supplier.

ASPHALT ROOFING INDUSTRY BUREAU • 2 W. 45TH ST., NEW YORK 19, N. Y. SPONSORED BY 28 LEADING MANUFACTURERS OF ASPHALT SHINGLES • SIDINGS • ROLL AND BUILT-UP ROOFINGS

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CONSTRUCTION'S
BIGGEST POLLAR'S WORTH



...a Moulding Kit

in Pittco Premier Store Front Metal

• The new basic mouldings in the Premier line of Pittco Store Front Metal may be truly called a Moulding Kit. They may be combined in a wide variety of attractive patterns, giving the architect fresh style and beauty, and great variety in design to help in the creation of distinctive, sales-winning store fronts.

Shown here with the same head and drip members are three of the many designs which may be formed with these new shapes. Cross sections of some of the new mouldings are shown at left.

Most of the shapes in the Premier Moulding Kit are interchangeable and may be used both horizontally and vertically. They make it easy to design several adjacent store fronts, giving each a distinctively different appearance through the proper selection and arrangement of mouldings.

This convenient Moulding Kit of Pittco Premier Store Front Metal, is another result of "Pittsburgh's" constant research, aimed at helping you solve architectural and building problems encountered in the field.

PITTCO STORE FRONT METAL

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS

PITTSBURGH PLATE GLASS COMPANY

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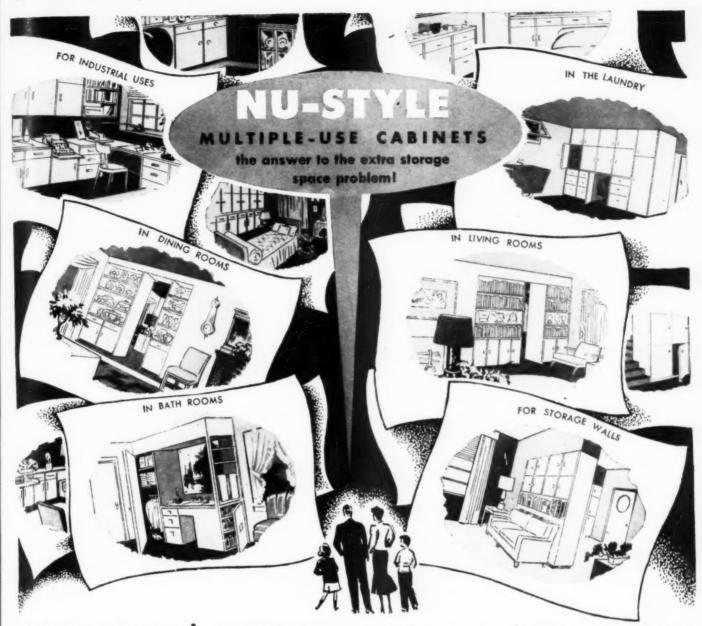
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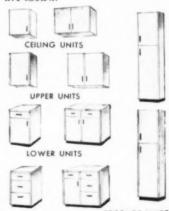
The Bilt-Well Line

Superior Unit Wood Windows Bilt-Well Interior Doors Bilt-Well Exterior Doors Nu-Style Kitchen Cabinets Bilt-Well Entrances Bilt-Well Shutters Close-tite Casements Bilt-Well Basement Windows Bilt-Well Combination Doors Bilt-Well Louvres and Gable Sash Carr-dor Overhead Garage Doors Bilt-Well Corner Cabinets Bilt-Well Storm Sash Bilt-Well Screens Gli-dor Cabinets Bilt-Well Medicine Cabinets Bilt-Well Ironing Board Cabinets Bilt-Well Mantels Bilt-Well Telephone Cabinets Bilt-Well Stair Parts Bilt-Well Unit Linen Cabinets

Bilt-Well Breakfast Nooks

NU-STYLE Cabinets are designed to fit any area and solve almost any storage problem. They are all-purpose cabinets, and the many standard units in which they come make it possible to use them practically any place.

They are produced from Ponderosa Pine wood, kiln dried, smoothly surfaced, pre-fitted, unfinished, semi-assembled, and packaged in a dust-proof carton. This is a summary of standard Nu-Style Cabinet Units which are furnished in graduated sizes, thus making them adaptable for various arrangements, of which several illustrations are shown.



WOOD WORK

CARR, ADAMS & COLLIER CO., Dubugue, Towa



Mindowalls*



PANORAMIC PICTURE is caught within the broad reach of this ANDERSEN WINDOWALL.

The home overlooks the Mississippi River, and the awe-inspiring beauty of a broad river valley is framed by an Andersen Casement Picture Window Unit. This WINDOWALL functions both as a window and a wall—permitting entry

of sunlight and fresh air, and opening up a view, yet providing an insulated barrier against cold air.

Specification data on ANDERSEN WINDOWALLS is in Sweet's Architectural and Builders' Catalogs, or will be sent by us upon request. See your local lumber or millwork dealer for further information.

*TRADEMARK OF ANDERSEN CORPORATION

Andersen Corporation

A modern store front is a

ALLALE RIALE

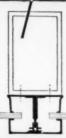
GHALLENGE

to creative designing





¼ size detail of stock division bar, used horizontally in above store front.



¼ size detail of stock division bar, used vertically with aluminum tubular reinforcement. -----

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Me Str Eas

Zourite, the modern aluminum facing material. Available in green, brown, or black porcelain enamel, and in alumilite.

You can meet this challenge with Kawneer Metals—they offer custom-styling in stock shapes

Kawneer Stock Store Front Metals possess the handsome appearance and striking individuality of custom-made shapes—yet they bring important cost-reductions to you and your clients. Kawneer Stock Metals cost far less than specially-made assemblies—they reduce the cost of drafting and detailing—and they eliminate costly delays.

Kawneer metals are styled and engineered to the highest standards of modern architecture. They also bring you new flexibility in designing, because many shapes are interchangeable and many serve multiple uses.

Pictured here are only a few of the Kawneer Stock Metals. Write for construction details. 207 North Front Street, Niles, Mich., 2507 8th St., Berkeley, Cal., or 817 East Third St., Lexington, Ky.

Kawheer

Store Front Metals • Modern Entrances
Facing Materials • Aluminum Louvered Ceilings
Aluminum Roll-Type Awnings

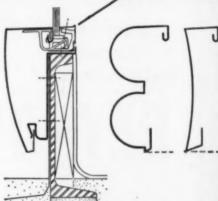




¼ size detail of stock glazing sash above.



One of the many other stock sashes.



Stock bulkhead assembly used in above store front.

Two other stock bulkhead faces which are also available.





¼ size detail of stock division bar used at left.



Stock corner bar angles from 90° to 120°, 120° to 165'



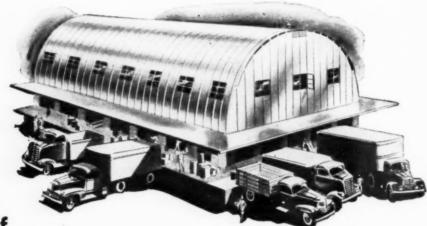
Stock revers

Stiffeners shown here are Medium. Also available— Light, Heavy, Heavy X stiffeners



Stock flush-glazing sash eliminates projecting metal.

IMMEDIATE AND GROWING BUSINESS OPPORTUNITY FOR ENGINEERS-CONTRACTORS-BUILDERS



plan and construct installations of

REYNOLDS ALUMI-DROME

All-purpose industrial, commercial and farm pre-fab... buildings range from \$3,800 up...we supply sales leads!

If you have the organization and facilities to plan and construct installations of Reynolds Alumi-Drome, you can start immediately in a growing field of profitable business.

The market for the Alumi-Drome is vast, and proven.
Inquiries have come in too fast to handle, because each potential buyer needs a competent local construction firm. Wherever such a firm has taken over, successive installations have snowballed more inquiries and sales.

Your profit on Alumi-Drome installations is up to you. You buy the Alumi-Drome shipped complete in pre-cut parts, ready for quick assembly with aluminum bolts through pre-drilled holes. Your installation can vary from simple foundation to complete first floors, commercial facades, industrial loading docks, etc.

You figure your contract accordingly.

If you have the set-up to handle this type of work, it will be good business for both of us to get together. Mail the coupon today!

Reynolds Metals Company, Alumi-Drome Division, Louisville 1, Ky.

- ► All-aluminum . . . patented all-bolt assembly
- No rust, no nails, no holes in any weather surface
- No painting, no maintenance
- ▶ Eligible for FHA financing

Reynolds Metals Company Alumi-Drome Division 2003 South Ninth St., Louisville 1, Ky.

Please send me full information on construction agencies for the Alumi-Drome.

Firm Name

Type of present construction

operations.....

Sender's name and title

Street

City_

Zone State



194

not just a new fixture-

A NEW KIND OF LIGHTING!

So new, so exciting in design and performance, it will close many a "doubtful" sale.



PUT PACEMAKER in your plans

Boldly overscaled, snug-to-ceiling designs in beautifully textured glass created by Carl Moser with scientifically engineered 3-way lens light.

Pacemaker's scientifically designed built-in colouvred lens*.



...blends into fixture contour

...spotlights center of room

...eliminates glare

... requires no special inside ceiling construction



SPOTLIGHTING



BACKGROUND LIGHTING



BIG OCCASION LIGHTING

LIGHTOLIER

Pacemaker-Perfect for homes, for offices, stores, restaurants, public buildings.

"I like Pacemaker. I recommend it highly." Julian Roth, **Emery Roth & Sons** Architects, New York City People judge by names they know. Your prospect knows "It's a Lightolier" are quality words that bespeak a quality house.

Lightolier, Dept. AB4, Jersey City, N. J.

Please send me complete information on the revolutionary Pacemaker series. Also send me all the facts on Lightolier

- ☐ Residential Lighting
- ☐ Portable Lamps
- ☐ Architectural Lighting □ Decoralite

Name Address

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...and quite a roof over your business, too!

Wherever you find a home owner, prospective home builder or farmer interested in getting the most roofing protection for his dollar you find an "active" Ruberoid prospect.

You'll find plenty...for they're getting the story every month of every year! They're being told and sold on the longer-lasting, truly weatherproof roof that only Ruberoid's unique, patented Tite-On Shingles can provide.

Paced by this hard-hitting pre-selling, alert dealers are building up year-round sales volume on these shingles. They can help keep quite a nice roof over your roofing business, too!

Southern Planter **Poultry Tribune**

Manufacturers of Building Materials for Home, Farm and Industry

> **Executive Offices:** 500 Fifth Ave., N. Y. 18, N. Y.

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... that's how easily the new post-war Mesker Steel Casements operate! No wonder home buyers are so enthused about them. You'll be, too, when you see how much value Mesker has engineered into this competitively-priced line. See our catalog in Sweet's Builders File-or write us for a copy.

MESKER BROTHERS . 4342 GERALDINE . ST. LOUIS 15, MO.

No tugging-no lifting -no struggling as with old-style windows. Mesker Steel Casements cannot swell, warp, shrink or stick.



One hand opens and closes Mesker Case-ments the easy modern way. Gears do the hard work — you just twirl the handy rotor handle.

PUT THAT modern look IN YOUR HOME!

Standard sizes can be used singly and in combination to obtain any desired window effect in any size opening ...





FINGER-TIP

OPERATION

TO OPEN TO CLOSE











Lath

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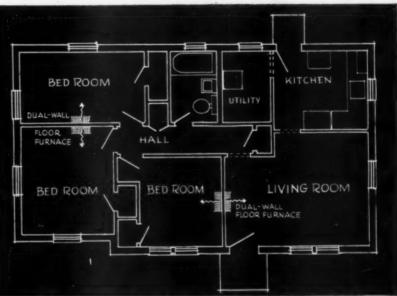
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"Mansion Heating" Comfort For Low-Cost Houses! - - With eman DUAL-WALL Floor Furnaces



naces help him build better!





This Fine Floor Plan Shows How Franklin Burns Uses These Coleman Installations To Uphold Quality

He uses Coleman's dual-wall models which set under the walls to heat separated rooms. Each provides powerful automatic heating for from two to five They hold down building costs and bring real comfort—even in Colorado's rigorous mountain winter climate. As Franklin Burns says: "Coleman Dual-Wall Floor Furnaces fit in with our plans—they are a definite part of better building!

Find Out How They Help You Uphold Quality, Hold Down Price, And Make A Profit

Now, contractors everywhere are using Coleman Floor Furnaces, to help give better homes for the money. You, too, can get either dual-wall or flat-register models in sizes from 25,000 to 70,000 BTU; you can have gas, oil, or LP gas burners. Meet building code and FHA requirements; give finest automatic heating with any floor plan. And you'll have no duct cost, low installation time charges. See your Coleman dealer now for the right Coleman Floor Furnaces for you.

Available For Gas, Oil or LP Gas, Full Depth or Shalloflow

Yes, we have floor furnaces, flat-register or dual-wall, to meet every requirement of local fuel situations and building codes! Ask your Coleman dealer, or mail us the coupon.

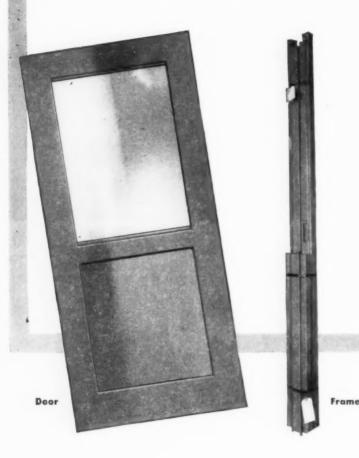
> THE COLEMAN COMPANY, INC. Wichita 1, Kansas

Gas, Oil or LP-Gas DUAL-WALL Coleman Floor Furnace



The Coleman Company, Inc., Builders Contract Dept. AB-667, Wichita 1, Kans. Please send me free information about your special cooperation for builders and contractors, and Floor Furnace Catalog for Builders. I am specially interested in:					
Name		********			
Address	3				
Town	********		State		

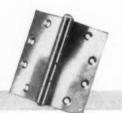
No mortising, no drilling, no tapping, no prime painting!



...with
FENESTRA'S DOOR
"PACKAGE"







Hinges

Just bolt the strong, steel frame together. Attach the frame to floor and anchor to walls. Screw on the template locks and hinges. Hang the door!

That's all! The rest is factory-done for you. Low-cost Fenestra* Standard Stock Metal Doors come to the job complete with hardware and frames *already* sized and machined to fit. Man-hours sayed. Money sayed.

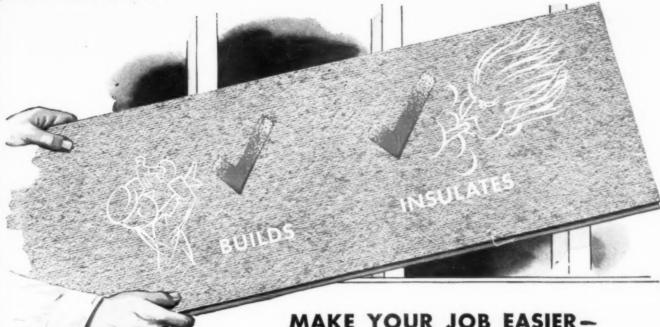
These good-looking, insulated doors reach your dealer carefully wrapped to protect the gleaming finish. And you can get them right now.

Doors are also available with the Underwriters' B Label.

For further information, call the nearest Fenestra office, or write Detroit Steel Products Company, Dept. AB-4, 2260 East Grand Blvd., Detroit 11, Michigan.

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Fenestra STANDARD STOCK METAL SWING AND SLIDE DOORS



MAKE YOUR JOB EASIER-

BUILD THE Double Duty

WITH INSULII

Three important INSULITE advantages make your job easier and more profitable: (1) INSULITE builds and insulates; homes are easier to heat in winter, are cooler in summer. (2) INSULITE is easy to handle, nails on fast, saves time, waste is minimized. (3) INSULITE (Bildrite) Sheathing and Sealed Lok-Joint Lath used together form the Approved INSULITE Wall of Protection. This method of construction controls moisture condensation in walls. For better houses that sell easier, quicker and at a greater profit,

use Double-Duty INSULITE.

WALL OF PROTECTION

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MINNESOTA & ONTARIO

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INSULITE, DIVISION MINNESOTA & ONTARIO PAPER CO. Dept. AB-49, Baker Arcade Bldg., Minneapolis 2, Minn. Please send me your new folder — "Insulite's Wall of Protection Controls

Moisture Condensation."

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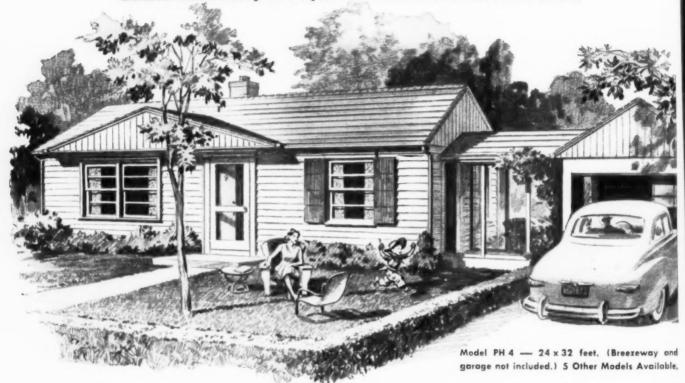
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The Economy Home

IS THE ANSWER TO THE PUBLIC DEMAND
FOR LOW COST HOUSING

Yes, this new series of PH Homes is the perfect blending of beauty, sound construction and low cost. And each quality speaks for itself in a manner that means business for builders in '49, and business means more profit for you, Mr. Builder. Write or wire for full details.



Styled for today's market . . . a better home for the money

Experienced builders who see these new PH Homes quickly recognize the values that home buyers are seeking — supremely good design, expert craftsmanship, high quality materials —real livability. P&H's modern production methods make the most effective use of time and materials — insure precision down to the last detail — shorten the period of construction

— effect the cost savings that are so important in today's market.

P&H Homes come to you from the factory 83% complete — fully panelized and insulated — requiring only 169 man hours or less to erect.

This low cost economy Home presents a great opportunity for the active builder.

OUTSTANDING SALES APPEAL!

- 1. Full size 24 ft. wide x 32 ft. long.
- 2. Large living room 11'7" x 17'4".
- 3. Joint-free, crack-proof interior walls.
- 4. Choice of two or three bedrooms.
- 5. Flush doors throughout.
- 6. Built with or without basement.
- 7. Choice of heating equipment.
- 8. Highly rated for FHA financing.



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MOST POWERFUL

PORTER-CABLE

Cuts 2" - Weighs 12 lbs!

Cuts More Material—faster! Lumber, plywood, compositions, plastics, transite, tile — even sheet metal.



Press the trigger of the New Guild A-6 Saw and there's a burst of speed and power unmatched by any other 6" saw on the market today! Just breezes through 2"-depth cuts.

Compact, lightweight, beautifully streamlined, the Guild A-6 is scientifically balanced for easier handling . . . less fatigue . . . and accurate cutting . . . good performance reasons why no builder can afford to be without this all-duty saw.

More for Your Money! And here's why:

- The Guild is cleverly ventilated: Harmful sawdust does not work back to the motor. Escapes through rear opening.
- Air from front opening keeps cutting line clean. Cutting guide always visible. Blade is on right side where it belongs!

- Knob raises or lowers blade for any depth cut between 1/8" to 2".
- Extra-broad shoe for steadier rest on work.
- Double-acting rip guide (extra). Helical-gear power drive for highest effi-
- ciency.
- Spring unfailingly returns retractable blade
- guard to protective position.

 Aluminum alloy frame—die cast.

 Uses abrasive cutting wheel for tile, metal, etc. Rugged quality throughout. Guaranteed.

Exclusive 3-Way Balance Makes Finest Running Saw

NO TIP! Hold it this way, and the Guild does not nose down. It's in a horizontal, balanced position all ready to cut.





NO TILT! Place the Guild this way on a narrow straightedge. It does not tilt sidewise. Again, it's balanced. No veering or cramping.

NO TWIST! Suspend Guild Saw by a string. It holds steady when starting—no dan-gerous power twist typical of many saws.



See the Guild Saw today! Try its power, balanced handling, versatility. You'll be amazed.

Now being shown at leading dealers. Information gladly furnished direct, on request.

ORTER-CABLE MACHINE

1604 N. Salina St.

Syracuse, N. Y.

Manufacturers of SPEEDMATIC and GUILD Electric Tools

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FIBERGLAS* BUILDING INSULATION than any other make



BECAUSE

It's easy to handle

Roll blankets and batt blankets are fully enclosed, won't pull apart. (Fiberglas Insulation is the only mineral wool that comes in roll blanket form.) Compression packages pass easily through stud and joist spaces. Light in weight.



BECAUSE

Installed cost is low

Fiberglas Building Insulation is competitively priced with ordinary insulations, and is actually cheaper to install than most. Strong nailing flanges simplify the job. A size and type for every insulation need.



BECAUSE

It's a good selling feature

Your customers know Fiberglas Insulations as quality materials that are used in the best homes, trains, trucks, planes, home appliances. They regard Fiberglas Insulation as evidence of quality construction.



Owens-Corning Fiberglas Corporation, Dept. 2018, Toledo 1, Ohio. In Canada: Fiberglas Canada Ltd., Toronto, Ontario



*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with glass fibers.

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REASONS WHY

STRAN-STEEL FRAMING

EASE OF CONSTRUCTION

FLEXIBILITY OF DESIGN

ECONOMY

Exterior view of school. Electrical wiring is installed through factory-punched holes in frame members.



Interior view of school under construction. Note how wood collateral is nailed directly to metal framing.

Here is what Benjamin Kenneth Wyatt, architect for the Robstown, Texas and other school buildings, says about Stran-Steel Framing:

"We have used Stran-Steel construction in several recent school buildings.

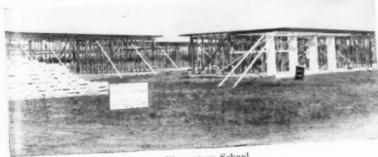
"Besides being most flexible for modern design, providing light cantilevered construction, thin window mullions used with collateral materials, economical suspended furring, Stran-Steel offers great rigidity with speed of erection for greater economy.

"Being able to nail to Stran-Steel framing gives the economy of wood framing for dry wall construction (Knox School) also eliminates furring for metal lath (Robstown Schools) in plaster construction. Fire-safety and long life is of paramount importance in school building construction, and incombustible Stran-Steel framework meets both of these requirements."

Stran-Steel framing makes it easy to design, easy to build BETTER BUILDINGS economically! If you are planning a housing project, a light industrial building or a private home, you can give your buildings a backbone of steel with Stran-Steel framing.

GREAT LAKES STEEL CORPORATION

Stran-Steel Division • Dept. 30 • Penobscot Bldg. • Detroit 26, Mich.
UNIT OF NATIONAL STEEL CORPORATION



Stran-Steel framing for Robstown Elementary School.



Ameri



- Savings up to 20% on initial cost and installation time!
- Unconditionally guaranteed against defective materials or workmanship!
- Over 4 million now in use!
- Easy 2-hole installation!
- Hand finished for quality!

When you specify, sell or use Kwikset locks you add beauty and quality to homes. You guarantee years of trouble-free service. And—because they are low in cost and easy to install—substantial savings are the rule.

Born of wartime research, Kwikset lock parts are of brass stampings or pressure cast from Zamak No. 5—the same kind of tough, high-test alloy now used for precision tools and calculator parts. Pin-tumbler, cylinder locks assure top security.

Clean simplicity of design—coupled with fine hand-finished lustre—make Kwikset locks ideal for all residential structures. For beauty...for economy...for lasting service—Kwikset locks are tops!

Kwikset locksets are available for all standard installations and in all popular U.S. finishes, Deadlatches are optional.

> Manufactured by KWIKSET LOCKS, INC. Anaheim, California

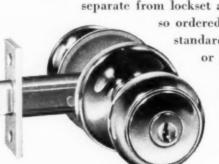


400A, 5-pin tumbler entry locking set for all exterior doors. Handle is separate from lockset and can be

so ordered. Available in standard finishes of dull or polished chrome, brass or bronze.

Authentic design for all semi-modern and traditional

type structures.



KWIKSET JIG PROVES AMAZING TIME SAVER!



Complete with special boring bits, Kwikset Jig screws on in a jiffy and holds tight. Assures exact right-angle holes for perfect lock fit. Low in cost, it saves time and money. Write today for full details.

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1107 East Eighth Street Los Angeles, California

Please	send me	e complete	information	on Kwik	set locksets	and r	name of	my nearest
dealer.	NOTE:	Openings	for distribute	ors are sti	Il available	in a fe	w select	territories.
Write	for deta	ile						

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Steelcraft Superior One-Piece STEEL DOOR FRAMES

Bring Amazing New Efficiency and Economy to Housing and Building Construction

- CUT DOOR FRAME ERECTION TIME 1100% *
- ONE-PIECE ALL-WELDED COMBINATION DOOR FRAME AND TRIM
- HINGES SPOT-WELDED TO, FRAME
- COMPLETELY ENCLOSED DUST BOX WELDED TO FRAME—BRASS ADJUSTABLE STRIKE PLATE FURNISHED
- FINISHED WITH ALUMINUM PAINT APPLIED BY ELECTRO-STATIC PROCESS AND BAKED ON

They're the talk of the industry! Imagine . . . a one-piece, all-welded steel door frame with hinges, adjustable strike plate, and dust box attached . . . completely fabricated at the factory . . with electro-painted aluminum baked-on finish! Picture the sensational advantages in using these extra-strong, extra-rigid, quicklyerected units for almost any interior or exterior door frame purpose. And almost a DOZEN Steelcraft one-piece door frames can be set up in the time previously required to completely install one multiple unit frame and trim. Investigate the possibilities now; see how the use of STEELCRAFT one-piece DOOR FRAMES results in easier, quicker erection . . . amazing reduction in installation costs.

*Based on accurately-timed tests.

Made by Manufacturers of Steelcraft Steel Casements and Steelcraft Metal Buildings.

MAIL THIS COUPON NOW!

Write today ! ...

for Complete Information and Specifications on Steelcraft One-Piece Steel Door Frames

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MANUFACTURING COMPANY

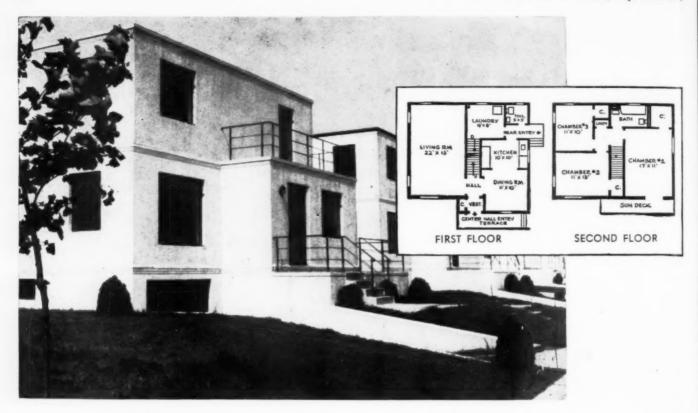
Rossmoyne, Ohio (In Greater Cincinnati)

The Steelcraft Manufacturing Company, 9148 Blue Ash Road Rossmoyne, Ohio (In Greater Cincinnati)

Please send me complete information on Steelcraft One-Piece Steel Door Frames.

Name
Business Address
City Zone State

Position Type of Business



All-Concrete Homes

AT COST OF LESS PERMANENT CONSTRUCTION

HERE is concrete construction at its rigid, rugged, economical best—walls, floors, roof all tied together in monolithic permanence.

Outer walls are 8 in. of reinforced concrete, with 1-in. center insulating core of celotex—a 9-in. wall that is as dry as a bone.

Designed by OSCAR EHRLICH, Engineer, 150 of these 2-story-and-basement, all-concrete homes are being built by DRAKE CONSTRUCTION COMPANY at Long Beach, L. I. Houses are poured in pairs. Line-production methods were worked out using Lone Star Air-Entraining Cement for smooth, clean wall surfaces, with 'Incor'* 24-Hour Cement in floors for faster form re-use — and it works like a charm.

These houses are replete with attractive features, such as streamlined kitchens, but the thing that sells best is the *character* of the construction:

A house that is proof positive against dampness, fire, storm and termites; only \$14.50 a month heating cost last winter, coldest in a long time; not a trace of dampness last Spring, wettest in years, under

seashore exposure; an absolutely firesafe rating, saving 75% on fire-insurance—a house that helps pay its own carrying charges out of savings like these.

Biggest news about these all-concrete homes is the daily proof that people are deeply interested in substance as well as form. Construction ingenuity which gives them both, at no extra cost, is writing new definitions of value.

*Reg. U. S. Pat. Off.





LONE STAR CEMENT CORPORATION

Offices: ALBANY • BETHLEHSM, PA. • BIRMINGHAM • BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS • JACKSON, MISS: KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK • PHILADELPHIA • ST. LOUIS • WASHINGTON, D. C:

LONE STAR CEMENT WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,000,000 BARRELS ANNUAL CAPACITY



BUILDING MATERIAL - EQUIPMENT - APPLIANCES

Number of Builders Up 33 Per Cent Over 1939

Although construction is the second largest gainful activity in the nation (only agriculture is larger). great confusion exists as to how many builders there are, whether they are typically large operators or small operators, and where they are located. It is comparatively easy to count the number of drug stores in the United States, but builders are apt to move from one locality to another and many operate from their homes. The govern-ment, industry, and the general public are full of advice for the building industry, but they have only a vague idea of the people to whom they are talking. For the first time since the Construction Census of 1939, data is available which shows a fair approximation of the number of builders in the United States, their locations and the relative size of their operations.

Current estimates of the number of builders have ranged from 40,000 to 200,000, but data just released by the Department of Commerce shows 46,000 in the continental United States. This is an increase of 13,000 (33 per cent) over the 33,000 reported in the Census of 1030. The data was obtained by a tabulation from social security returns made by builders for their employees during the first quarter of 1947. It is part of a report which presents statistics on all business establishments covered by the Social Security program.

These 46,000 builders employed 647,000 people in building construction in March 1947, or an average of 14 employees each. Later in the year there were undoubtedly more employees and, possibly, more builders reporting. However, 31,-(00) of the 46,000 builders employed only seven persons or less, and approximately 20,000 had three emplayees or less. Nine hundred firms had 100 or more employees, while only 111 firms in the country had 500 or more employees. This indicates that the building industry is predominantly comprised of small msiness firms.

ACITY

The following summary shows the number of builders by number of persons employed and is more indicative of the size of the industry than any data since 1939:

		Building General Contractors	
0-	3	Employees	19,683
4-	7	Employees	11,731
		Employee's	
20-	49	Employees	3,631
50-	99	Employees	1,159
100-4	199	Employees	789
500 c	or n	nore Employees	111
		_	

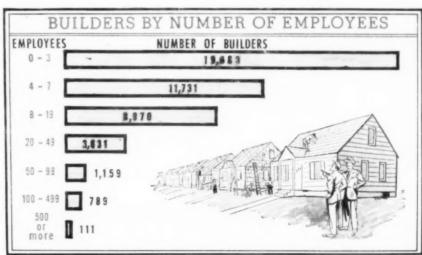
TOTAL46,074

The report also shows that there were 25,500 lumber and building material dealers in 1947. Lumber dealers also are largely small business men as is indicated by the fact that 15,700 had seven employees or less, and only 900 had 50 or more employees.

It was to this audience then that Raymond Foley, Administrator of the Housing and Home Finance Agency, addressed his remarks last month when he said that "the housing industry has the capacity to reach at least the million mark in housing production this year if all parts of it combine their efforts toward meeting the prevailing market trends."

Currently it is predicted that there will be from 50,000 to 75,000 fewer houses produced this year than were produced in 1948 when the total reached 930,000. Mr. Foley said that we have the capacity to do better than last year and that the only way to do it is to achieve cost reductions that will make sound, acceptable housing available for more average families, with a much larger proportion of it for rent at prices more people can afford. But Mr. Foley didn't say "how to do it." To date builders have used much ingenuity in cutting costs through the use of new materials, new designs, and building methods. Possibly the only way that costs can be further reduced is through more efficient labor, a reduction in labor rates, or a general reduction in building material prices.

Unlike most industries where mass produced goods of the same type and model sell at practically identical prices in all parts of the country, residential and non-residential building depends on the individual decisions of about 46,000 contractors who go through all the operations of manufacturing, including the purchase and assembly of materials, the design of their product, the hiring of labor, and the final sale to the consumer.



Source: Dept. of Commerce

American Builder Chart

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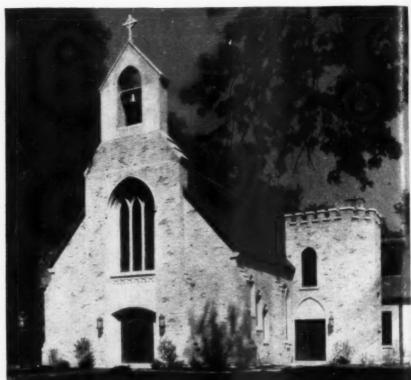
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FOR BEAUTY-BUILDERS SAY



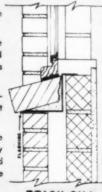
Brick rates first"

TIPS ON GOOD MASONRY PRACTICE

HOW TO CONSTRUCT BRICK SILLS

Brick sills not only are attractive but are economical for practically all masonry. Procedure:

- Brick are laid on edge with a slope of at least 2" to the foot.
- 2. Bottom edge of brick should project at least 1" to form a drip.
- 3. Cement or cement-lime mortar should be used.
- 4. The entire side of the brick should be covered with mortar before it is pressed into place.
- All joints should be completely filled, pressed tight and tooled.
- 6. The bottom edge of the brick may be accurately lined by means of a wood strip fastened to the face of the wall.
- 7. Flashing should be installed as shown.



BRICK SILL Wood Surround and Steel Casing

Yes, brick is first for beauty, too.

And it's not surprising when you consider brick's great flexibility of design, its wide range of colors and textures, its warmth and permanent strength.

Because of these properties, you builders chose brick first for beauty among all materials in a recent nationwide survey of builders.

You put brick at the top for permanence, too...and fire safety, and real value, and customer preference. In fact, you named brick first 10 times on a list of 12 such qualities—for both residential and non-residential building.

So, when you build for beauty, build with brick. You'll get extra salability and top material quality as well. Take it from men like yourself, whose job it is to know. It's BRICK FIRST!



HOW TO BUILD SIX BEAUTIFUL BRICK HOMES—Send today for attractive planbook "Brick Engineered Homes." All are small, modular designed and easy to build. Send 25¢ with your name and address to Structural Clay Products Institute, Dept. AB-4. 1756 K Street, N.W., Washington 6, D. C. Detail drawings available.

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HERBERT D. WILSON—Under what apparently is his by-line in the Chicago Daily News published a number of gross misstatements of fact about the home building industry on Dec. 31, 1948.

AUTOMOBILES — Wilson was trying to justify today's automobile prices. Why, is his business, but the means he employed are our business, since he took some pokes at home building which appear entirely unnecessary, and certainly reflect a colossal ignorance of what has taken place in the past 40 years.

NO CHANGE-Says Wilson, "Today the house that once cost \$1,600 sells, new, for about \$9,000. It's still built with essentially the same hand tools used back in 1910." In the first place, nothing even resembling the 1948 house was in existence in 1910. The 1949 house differs even more markedly from the 1910 house than automobiles of the same years. In the second place, if Mr. Wilson ever tells that "hand tool" gag to a manufacturer of modern power tools or machinery used in home building, he had better duck fast.

AUTOMOBILES—Wilson might know a lot about them, but he certainly is batting around in a complete fog as far as house building and house building statistics are concerned.

FACT AND FANCY—It would be very simple to dream up a lot of worried conclusions from either fact or fancy to show that in relation to houses, 1948 automobiles cost two or three times as much as they have any right to cost. Nothing would be gained by it, because under strict analysis it wouldn't make any more sense than Wilson's stuff does.

LIFE MAGAZINE—After a recent panel discussion which kept 17 people busy for 16 hours talking in circles, Life's reporter at the panel stated, among other things, that the average American has been encouraged by the age in which we live to believe that his dream of a low-cost house of his own can and ought to be realized. If he has, it is because the idle explorations of panels such as the one reported have been presented to the public as conclusions which the average American can expect to realize.

AVERAGE AMERICAN—That's worth a look, too. What is an average American? There is no such animal, and there never has been. It is to be hoped that there never will be. Anyway, it is sheer nonsense to make a statement about what the "average American" wants. Even if there is an average American there are so few of him that the remaining 99 per cent who are not average are entitled to speak for themselves, and can be depended upon to do so,

30,000 PARTS-Long ago somebody pulled that one out of the air. and said that it is the number of separate parts in a house. Maybe so, if you count every nail, screw and glazing clip. It's an old bromide, and it was hauled out at the Life panel, and kicked around. The implication always is that mechanics at the job site actually handle that many parts. It's good hokum to throw at an unknowing public in an attempt to discredit home builders. Nothing is ever said about the preponderance of factory fabricated parts that arrive at the job site complete and ready to install. There must have been a lot said about it at the panel, however, since several eminent, pace-setting home builders were there.

COMPARISONS—If anyone ever seriously sets himself to make a comparison of both the quantity and quality of production by builders during the first three and one-half years following the close of the war with the production of any other industry (including the automobile) it will be found that builders outstripped all others. And this in spite of that classic team of messer-uppers, Wyatt and Bowles.

New JACKSON BUILT-IN HOME DISHWASHER

THE SMASH HIT OF THE NATIONAL BUILDERS' SHOW!

NO WONDER builders who saw the new Jackson Home Dishwasher demonstrated have acclaimed it as the best ever.

Look at these features-

- 70 second operation! Dishes air dry faster due to removable basket.
- Unlimited capacity—baskets of dishes are washed and rinsed as fast as they can be loaded and unloaded!
- Easily installed—can be placed under wall cabinets or in corner locations if desired. Merely cut 1934" hole and connect hot water and drain. Completely wired, ready to plug in.
- Ruggedly built—no service headaches!
- Proven performance and dependability!

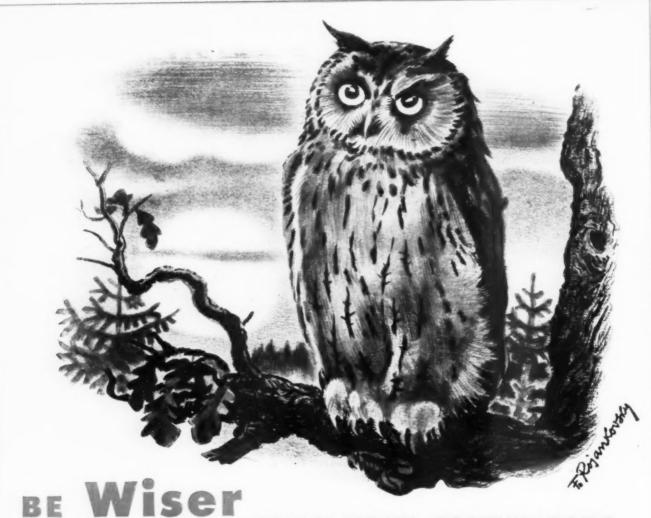


Removable stainless metal cover fits flush with drain board. Machine also supplied in standard 24" cabinet.

Write today for fully illustrated information!

JACKSON DISHWASHER COMPANY

DISHWASHING SPECIALISTS SINCE 1925 3703 EAST 93/d STREET CLEVELAND S, OHIO





AN YOUR COMPETITORS

Some builders are wiser than others. They have the knack of attracting customers. One way they do that is to install the kind of cooking equipment more people want-modern Electric Ranges. The trend to Electric Cooking is proved by the fact that another million American families switched to it last year. Conservative estimates indicate that the same thing will happen again this year.

So build houses that are modern today and will stay modern for years to come. During construction, include wiring for an Electric Range, leading to a range outlet in the kitchen. An Electric Range, like electricity itself, is now a "must" in every modern home!

ELECTRIC RANGE SECTION, National Electrical Manufacturers Association, 155 East 44th Street, New York 17, N. Y.

ADMIRAL • COOLERATOR • CROSLEY • ESTATE HEATROLA • FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOTPOINT KELVINATOR • LEDO • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE

Follow the trend...

YOUR HOUSES

Another 1,000,000 American families switched to Electric Cooking last year

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Round Table

NATIONAL HOME WEEK in 1949 will begin on September 11. It promises to be nothing short of colossal. Judging by plans already under way in most of the NAHB local chapters, and participation that many manufacturers are outlining, the week will be the greatest demonstration of the products of a single industry ever envisioned, The number of participating communities will run into the hundreds, and the number of houses to be shown will go well up into thousands.

FEATURE ARTICLE of this issue is a detailed, illustrated article showing step-by-step procedure for organizing local factors in the home building industry for a dramatic showing of modern homes during National Home Week.

NO COMMUNITY is too small to participate, and to reap the advantages of a tie-in with the national publicity planned for National Home Week. Communities with only one builder or one retail lumber dealer and no builder or dealer association of any kind can do an effective public relations job for home building and home buying.

SEE THE OUTLINE of procedure in the feature article. It is sufficiently flexible for adaptation by New York or Chicago on one hand, or a village of 500 people.

REMBEMBER THE G.I. carpenter apprentice whose complaint against his builder employer was published in the September issue? Herbert Kellor, supervisor, division of vocational education, department of education, St. Paul, Minn., has some pertinent comments to make on the subject.

SAYS MR. KELLOR, in part, "This young G.I. who was supposedly exploited on his job did not take the recourse given to him under the apprenticeship training program to correct his problem. There is no need for an apprentice to be continuously working at common labor, and not having an opportunity to learn the trade, because he can petition the Joint Apprenticeship Committee for a survey of his working conditions, and thus have the authority to take the

(Continued to page 86)



YOU SAVE MONEY. BERMICO Sewer Pipe has strong walls, resists breakage. It's light, handles easy on the truck and on the job. Economical 8-foot lengths.

YOU SAVE TIME. BERMICO is fast-laying. One-two-three quick hammer blows and the joint is made—for keeps. No joining compound needed. You can back-fill right away, too.

YOU SAVE TROUBLE. With BERMICO there'll be no complaints later. It's corrosion-resistant, tough. Resists sudden temperature changes and soil settlements. Joints are root-proof, permanent.

FOR HOUSE-TO-SEWER OR SEPTIC TANK Specify BERMICO. Made in a full range of sizes, connections, bends, reducers, adaptors, etc. Nationally advertised. Use BERMICO Perforated pipe for drainage purposes. For further information write Brown Company, Dept. A-14, 500 Fifth Avenue, New York, N. Y.

EASY TO INSTALL



8-foot lengths reduce number of joints to be made.

EASY TO JOIN



Root-proof, machine tapered joints require no packing.

EASY TO HANDLE



2/3rds lighter than other types of sewer pipe,

BERMICO meets with an ample margin all requirements of Commercial Standards CS 116-44 as issued by National Bureau of Standards, U. S. Department of Commerce.



BERMICO-A PRODUCT OF BROWN COMPANY





One touch of your finger will tell you why wood windows maintain their widespread popularity. For wood is a natural insulating material. It retards transmission of heat or cold, minimizing dimensional change due to temperature variation. Ponderosa Pine's low density, smooth texture, and uniform grain provide a natural bond for all finishes. Moderate in cost, and available in modular standard sizes in a wide variety of styles, Ponderosa Pine windows are correctly proportioned and precision made for quick installation. These windows are available toxic preservative treated in accordance with tested industry standards. Preservative treatment of your Ponderosa Pine windows gives added resistance where staining, decay, insect attack or humidity are problems.

for friendly living Ponderosa Pine WOODWORK

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ful booklet on Pon-derosa Pine windows and doors is yours for the asking.

SAB-4, 38 South Dearborn Street Chicago 3, Illinois
Please send me a copy of "Today's Idea House." (Please print).
Name

Ponderosa Pine Woodwork

City	Zone	State	
Address			
Name			

EDITORS' Round Table

(Continued from page 85)

necessary steps to correct any undesirable situations. The apprentice is indentured and given a set of standards that should be followed on the job.

"WE FEEL," continues Mr. Kellor, "that the apprenticeship training program is the best possible means of training skilled craftsmen. This is not only the best method, but also the most economical, a method in which business, labor, management and the public cooperate in the training of the individual so all can benefit mutually."

DEFENSE of at least one public school system is made by Mr. Kellor, who outlines the units of instruction carried on in the St. Paul vocational evening school for carpenters. They include two courses in blueprint reading, steel square (elementary and advanced), wood science, use and care of tools and equipment, related mathematics, estimating,

CARPENTRY apprentices in St. Paul are required to attend evening schools two nights a week, three hours a night for 36 weeks. The committees carefully scrutinize reports from local schools as to attendance, quality of work, and attitude in classes. Apprentices whose reports are not up to standard must explain before the committee, and stand disciplinary measures if required.

EVENING CLASSES are taught by both skilled tradesmen and by specialists in various lines. Teacher training classes for craftsmen who have had a limited amount of teaching experience are held twice each year.

MR. KELLOR agrees that it is impossible to teach an entire trade in a school building, as the cost is prohibitive, and the environment is not similar to the environment on the job site. Exploration and pretraining courses are the best the schools can do.

BUILDERS and labor organizations could do a great deal, concludes Mr. Kellor, to point out to local school administrators the necessity of supplying some funds. equipment and space to carry on

(Continued to page 88)





ROC Aggregate which is simply dusted on before finish troweling and produces a rich, beautiful finish of built-in color that is right IN the concrete. Colored concrete sets your jobs apart and gives them distinction—and adds a valuable sales feature. Over fifteen years of successful use. We invite your inquiries. Write Dept. AR-1, Truscon Laboratories, Division of Devoe & Raynolds Co., Inc., Detroit 11, Michigan.

TRUSCON Jaboratories



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Built-in COLOR

HARDNESS

DURABILITY

EXTRA VALUE

at Low Cost!

Supplied Ready to Use

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EVERYONE PROFITS



Mr. and Mrs. Home Owner

DUO-LAPS give homes the beauty and effect of expensive, wide siding at low cost. These luxurious, deep-horizontal shadows and wider exposures bring out the beauty of modern building design, give new life to older homes. Nature's prize insulator, Red Cedar, keeps homes cool in summer, warm in winter. Choice of eight colors.



The men who specify and apply Duo-Laps . . .

DUO-LAPS cover more area with fewer shingles, fewer nails, less labor. Applied easily over spaced or solid sheathing for new construction . . . over any kind of outside wall for remodeling. Can be laid with full 12" or 14" exposure. DUO-LAPS come to you pre-stained, eliminate your painting costs. Butted, squared and tapered perfectly for easy application. Immediate delivery.

Two shingles in one. Stained No. 1 Red Cedar top course. Rugged, genuine Red Cedar

for Double-Beauty Insulation and Economy...Specify DUO-LAPS
Write for new folder in beautiful natural colors

and name of your nearest Duo-Lap dealer.



STAINED SHINGLE CO.
GENERAL OFFICES COR. SPRUCE ST. AND DENNISON AVE.
COLUMBUS 8, OHIO

EDITORS'

Round Table

(Continued from page 86)

an adequate educational program in the local community. NAHB took a very forward step in training its own future members when leaders at the convention invited any or all of about 100 students in four-year light construction engineering courses to state where they would like to work on building jobs during the coming summer, and promised all who want work that they would get it in any city they chose.

REPUBLICAN OPPOSITION to the President's housing legislation, says a well known builder, plays right into Mr. Truman's hands. Present opposition of such men as Senator Taft, says the builder, is based upon nothing but whittling down the number of socialized houses the Administration plans to build.

THAT, he goes on to say, is exactly what Mr. Truman wants, so he can say to those who occupy such houses, "See what I got for you." and then hold out a promise to others for the future.

LET'S JOIN THEM, he advises, and recommend public houses for everybody. Insist that everybody be treated alike. That would kill the whole thing off in a hurry.

IOHN BONFORTE suggests that government subsidize home buying as well as renting, with subsidies on the same basis per unit cost of floor area. He suggests a ratio of one rental unit to four purchased. He also suggests that NAHB ask for at least twice as much as the Administration contemplates. He believes that would kick the props out from under the Administration, and pull the teeth of such men as Taft and Dewey who, he says, apparently believe that partial socialized housing is good if they recommend it, but bad if the Democrats recommend it.

THAT KIND of politics, believes Bonforte, who is a G.I. and a well-known builder in Colorado Springs, is the best way in the world to kill private enterprise, and he doesn't want it killed. He went to war to protect it, so he would have a right to enter the building business when he came back.

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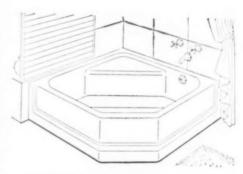
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benefits of the LAU Niteair fan. When your prospects see and feel for themselves the wonderful cooling breezes circulating throughout the house in a matter of minutes, your sales opportunity will go up 100%! Each fan in the LAU line is outstandingly efficient at amazing, low cost and carries a Certified Rating.

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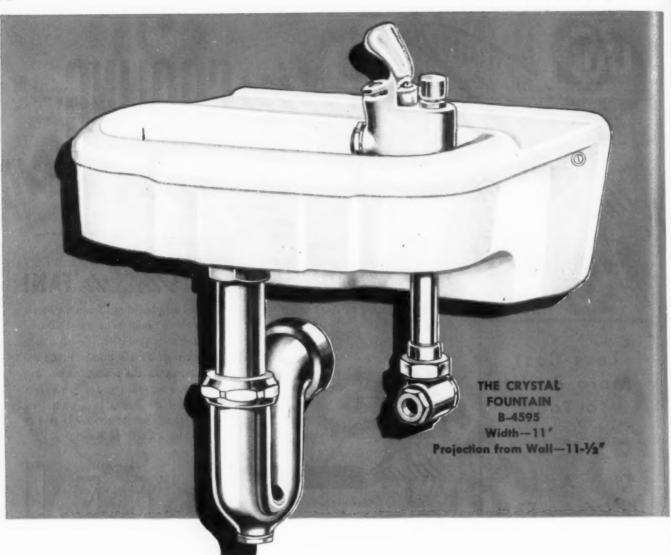
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MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

New York Builders Participants In Conference on Economy Housing

The Economy Housing Conference of the New York Metropolitan Area, which included builders, architects, engineers, and representatives of the FHA, VA, financial institutions, labor unions and state and national labor departments, sponsored a one day meeting, on the "1949 Economy Housing Program" at the Statler Hotel, New York City, in March,

Dr. Ernest M. Fisher, Director of the Institute for Urban Land Use and Housing Studies, Columbia University, was chairman of the program committee. Raymond M. Foley, HHFA administrator, spoke on "The Economy Housing Program for 1949."

Six panel discussions, followed by open forums, were held, all stressing ways by which economy can be achieved. Talks made by members of FHA underwriting staffs were "Economies of Land Planning," Myron Hendee, chief, Land Planning Section; "Economies in Design and Construction," John H. Hamann, chief, Architectural Section; and "FHA Administrative and Underwriting Suggestions," James J. Bly, chief underwriter.

VA construction standards were discussed by W. D. Brown and "Financing for Veterans Under Sections 501 and 505" by William V. Brown of the VA New York Regional office.

A panel on building was led by Alfired Gross, president, New York State Association of Home Builders. Appearing on the panel were Leonard Frank, president, Long Island Home Builders Institute; Fabian M. Crystal, president, Home Builders Association of Westchester; Bernard Krinsky, chairman, construction cost committee, Long Island Home Builders Institute; and Kalman Klein, chairman FHA-VA committee, Long Island Home Builders Institute.

On a panel comprised of architects and engineers, Adolph Goldberg, president, New York Society of Architects and Rudolph A. Matern, chairman of Architectural and Engineering committee, Long Island Home Builders Institute, spoke on economies in architecture; Walter P. Warendorff, second tice president, Queens County chapter, New York State Society of Professional Engineers, covered economies in engineering; and building costs and trends were discussed by Myron Matthews, vice president of Dow Service, Inc.

Financing was discussed by Nugent allon, president of the Federal Home

Loan Bank of New York; Lawrence A. Epter, president, Mortgage Bankers Association of New York; Dr. Herman L. Reis, New York State Savings and Loan League president; and Walter R. Williams, executive secretary, Savings Banks Association of the state of New York.

Louis F. Kreyer, director of the New York Lumber Trade Association, and William J. Avrutis, Structural Clay Products Institute, headed the discussion of materials.

Ten New Homes an Hour 1948 Record for Los Angeles

A record 81,219 dwelling units, or ten new homes an hour were built in Los Angeles in 1948, according to the annual report of the Los Angeles Home Builders Institute, Inc.

Among the outstanding 1948 achievements of the Institute were preparation of plans and specifications for the 1949 economy house, which the builders expect to produce on a large volume basis; the adoption by members

of a guarantee on the homes they build; a comprehensive program in the promotion of National Home Week; and improvement of public relations through goodwill advertising in metropolitan newspapers.

The Los Angeles association has supplied its members with current information bulletins on government regulations at all levels.

At a recent meeting Arthur A. Beliveau was elected president of the Institute for 1949. Other new officers are Lloyd Whaley, first vice president; E. Avery McCarthy, second vice president; Ralph G. Burgbacher, third vice president; and Spiros G. Ponty, the retiring president, secretary.

NAHB to Be Clearing House For Economy Building Data

The National Association of Home Builders will act as a clearing house for technical information in the industry drive for more economy houses.

In the nation-wide exploration of low cost housing problems, including construction, codes and standardization of new materials, the Technical Department of NAHB will process information as it is obtained and publish it for the entire industry.

Southern Builders Meet at Jackson



REPRESENTATIVES of Southern NAHB builder associations met in Jackson, Miss., recently to discuss area problems and plan for the expansion of their local chapter work. Left to right, seated: William C. Chandler, NAHB regional vice president; Norm Watkins, NAHB Membership Department director; and Harold Pailet, president, New Orleans Home Builders Association. Standing: Jack Helm, executive vice president New Orleans Association: Donald Crittenden, executive vice president, Memphis Home Builders Association; and Charles K. Chandler, president, Memphis Asso.

Builders Aid State Housing Survey



A GROUP of New Jersey builders who met recently to draft a plan for cooperating with Governor Driscoll of that state in his housing survey. The original committee named by the governor had no builders on it. Left to right, seated: Ed English, Carl Carlson, Willard Closs, N.J. Council president: Manny Spiegel and Morris Sarshik. Standing: Lewis Epstein, Alexander Feinberg, Byron Renninger, Louis Levin and Charlie Deubel.

Robert B. Johnson Heads California Council

The Home Builders Council of California elected Robert B. Johnson, El Cerrito builder Council chairman at a recent meeting held jointly with the General Contractors Association of Contra Costa County. He succeeds Earl W. Smith of Berkeley. Council Secretary Milton W. Morris was reelected.

Johnson, a native of Fresno, studied civil engineering at the University of California. He recently retired as president of the Contra Costa association.

Groups affiliated with the Home Builders Council of California are: Associated Home Builders of San Francisco, Associated Home Builders of Alameda County, Peninsula General Contractors and Builders Association, Marin Builders Association Associated Home Builders of Sacramento and the Contra Costa association

Stringfellow Re-elected President of Seattle Unit

V. O. Stringfellow, who was reelected president of the Seattle Master Builders Association at a recent meeting, was presented a gavel in appreciation of his work for the association during his first term in 1948.

Other officers named for 1949 were: A. E. Iverson, vice president; Meade Hargiss, secretary; and Maury Setzer, treasurer. O. M. Akers, C. E. Betcher, Lars Boyd, Ross Hebb, Harold L. Larsen, Cliff Mortensen and Roy Owen were named as trustees to serve for the coming year.

Members named to serve as NAHB directors were V. O. Stringfellow, Samuel Anderson and F. R. McAbee. Cliff Mortensen, Ross Hebb and A. E. Iverson will serve as alternates.

California Group Holds Economy House Meeting

A day's conference on economy housing with some of northern California's foremost home building authorities as discussion leaders, was recently held in San Francisco.

Sponsored by the San Francisco Chamber of Commerce in cooperation with the Home Builders Council of California and the FHA, the meeting included morning and afternoon panels,

Builders Meet with FHA

Federal Housing Authority officials and leaders of the Home Builders Association of Mahoning Valley discussed problems in the Economy Housing Program at a jointly-sponsored meeting in Youngstown, Ohio. The speakers included J. L. Wads-

The speakers included J. L. Wadsworth, FHA district director; L. M. Toner, chief underwriter, FHA; E. H. Gensler, vice president of the Mahoning Valley group; E. D. Cronon, Chief architect, FHA; and W. H. Hackman and L. M. Leick, FHA staff members.

1949 Officers Installed at San Antonio

L. G. Hodges was elected president of the San Antonio Home Builders Association at the recent election of 1949 officers. He succeeds G. S. Mc-Creless who relinquished the presidency after an active term.

The San Antonio chapter named Frank W. Falk, vice president; G. Marvin Watson, secretary. and W. Boyd Smith, treasurer.

The new officers, who were installed at a dinner in the Menger hotel, served as bartenders at a cocktail party preceding the dinner. L. E. Fite acted as master of ceremonies. Retiring President McCreless was cited for his work in 1948.

E. J. Burke, Jr., John F. Cunningham, and W. T. Thrift, Jr., were installed for three year terms as active directors. The new sustaining directors, elected for a one year term, are G. Marvin Watson and W. E. Thomas, Jr. Jack Kuntz and W. Boyd Smith were elected for one year terms as associate directors.



FOLLOWING their election to official positions in the San Antonio Home Builders Association, the men went to work immediately with a less serious assignment than some of their other duties will be. They are, left to right: L. G. Hodges, president; Frank W. Falk, vice president; G. Marvin Watson, secretary, and W. Boyd Smith, treasurer.

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William S. Banks Heads Washington, D.C., Association

The 1949 officer slate of the Home Builders Association of Metropolitan Washington is led by William S. Banks who succeeds Clarence W. Cosnell as president. Clarke Daniel is the new first vice president and Alvin L. Aubinoe is second vice-president.

New directors, to serve two year terms, are J. Wesley Buchanan, Morris Cafritz, Frank Calcara, Carl C. Crampton, T. Girard Lee, Russell Martin, Waverly Taylor, Robert Tiffey and Clyde J. Verkerke,

Directors who still have one year of a two year term to serve are: J. Garrett Beitzell, Lewis T. Breuninger, Vernon Briggs, Henry Connor, W. P.



WILLIAM S. BANKS

Croom Jr., D. E. Gingery, A. Milton Talbert, R. M. Watkins and Preston E. Wire.

The Washington chapter's advisory board now consists of the following: William P. Ames, William Bornstein, Joseph H. Deckman, W. H. Dyer, Richard W. Fisher, C. Vernon Hill, P. Y. K. Howat, C. W. Perrin, Charles H. St. John, Oliver Walker and Bryce Weaver.

See 4,000 Homes Under \$8,000 In Fort Worth Survey for 1949

An informal survey by the Home Builders Association of Fort Worth of about 45 builders indicates that more than 4,000 homes priced to sell for less than \$8,000 may be built in that area in 1949.

The largest single project is the Kellis Park Addition, sponsored by J. E. Foster and Sons, Inc., which is expected to reach the total of 1,500 homes. Homes for veterans and economy homes for low income groups will comprise the project.

Ridglea Housing Corporation estimates that they will build 490 additional homes in their Ridglea West Addition. Six hundred and fifty homes have already been completed in this project. Taylor Todd Corporation plans to finish 350 homes this year in their Morningside Addition.

It is estimated that more than 300 homes will be built in the \$9,000 to \$50,000 class. If all plans are carried out, around \$25,000,000 will be spent in Fort Worth in 1949 for building.

Cortright's Column

By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States



The home building industry long has needed a better press.

It is imperative that we have better understanding of the industry problems among newspaper reporters and magazine writers.

One of the reasons we have not had that understanding is because we have not worked closely enough with these important public relations media. We've been too busy building houses to take time to sell our story to anyone but ourselves.

The Chicago Metropolitan Home Builders Association now gives us tangible proof of just how valuable it is to get the truth told about the industry in local papers. That proof is in the clear, positive stories that have been written about home building in Chicago in the Chicago Tribune. It is a tribute to the Chicago chapter that this powerful newspaper did listen to the facts about our industry, and was willing to look at the tangible evidence—in the form of houses—which proved those facts, and then told the facts to the public,

The Chicago Tribune, in turn, deserves a tribute. The editors knew that the public had been misinformed—had not been told the whole truth about home building. So it started telling the truth to its million readers, helping to restore the confidence of the public in the building industry.

The experience of our Chicago chapter is particularly interesting because of the way it came about, for it points to the tremendous advantage other chapters can secure by putting maximum effort into National Home Week for 1949. It was because of the job Chicago did on National Home Week in 1948 that the understanding and cooperation developed between the *Tribune* and the Home Builders.

We know that the nation's Home Builders have done a magnificent job. While not claiming perfection, they have broken all building records in the face of shortages of labor and materials. A million units last year is evidence of that job

Our chief drawback, and one which has been frustrating, is that the public didn't believe the facts because it was the home builders who were telling them. We have cited only official facts and figures, but even these have not fully convinced the public.

Now, because we actually were doing the things we said we were doing, there are tangible developments that can be pointed to, such as were reported in the *Chicago Tribune*. And when an independent institution like the *Tribune* points to these tangible accomplishments—photographs and houses, and projects—people begin to believe them.

This example of the good public relations achieved by the cooperation of the *Chicago Tribunc* and our Chicago chapter is not the only benefit that grew out of National Home Week, but is cited because of the particularly impressive developments that followed.

The *Tribune* assigned Thomas Buck, one of its by-line reporters, to look over the entire Chicago building picture. Mr. Buck wrote a series of feature articles which were illustrated by aerial pictures. These were run in the *Tribune* during the week of December 6, 1948, for the entire week.

The series of articles was then reproduced in a booklet under the title of "Housing Report" and over the name of the Chicago Metropolitan Home Builders Association. In the front of the booklet, on the Association letterhead, was a message signed by Martin C. Huggett, Chicago's executive vice-president, which was headed very aptly, "Prologue to Accomplishment".

The production and distribution of this booklet was handled by the *Chicago Tribune*. It sent copies to members of Congress, the President, and other interested parties. It is the kind of positive publicity the industry needs.

Every city should profit by the experience in Chicago. Similar action can and should be taken. Let's get together with the press and really sell our story of past accomplishments and ability to solve the problems of the future!

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New England Home Show Scheduled April 18-24

The fourth annual New England Home Beautiful Show will be held at the Mechanics Building, Boston, Mass., April 18-24. The show will combine all of the features previously included in the All-Electric and the Modern Homes Show, which in the past have been held on separate dates.

The New England exposition is produced jointly by the Home Builders Association of Greater Boston and the Electric Institute of Boston, Inc. It will be staged and directed by Campbell-Fairbanks Expositions, Inc., Boston

New Officers for 1949 Announced by Minneapolis

The Minneapolis Home Builders Association has announced the election of its 1949 officers. Emil Fronk is the new president; Harold Rosendahl, vice president; and Arthur Fritz, secretary-treasurer.

Active directors are Fritz, Earl Ware and William Wilkinson, Harold Bach, Stanley Bjorklund, William Rafferty and Clarence Sather are associate directors.

National directors named by the Minneapolis chapter are Henry Thernell, S. G. Pearson and Emil Fronk, Alternates are Harold Franzen, Fred Hey, and Roy Olson,

NAHB to Release Movie on 'How Not to Build a House'

"How Not to Build a House," a motion picture short which stresses the problems in store for amateur builders who plan to erect their own homes without professional help, is being produced for NAHB by Gibraltar Pictures in Hollywood. An estimated 36 million persons will see the film when it is released in the near future.

The film will stress the fact that methods used by organized, reputable home builders are streamlined and adapted to economical construction,

A number of well-known Los Angeles housing developments are being used in the picture.

Early 1949 Chicago Survey Shows Increased Home Sales

Sales of new homes in the Chicago area have steadily increased since the first of the year, according to the Chicago Metropolitan Home Builders Association's most recent survey. The 300 builder-members surveyed represent 60 per cent of the residential construction in the area.

Seventy-two per cent of the replies indicated either normal or increased sales. The remaining 28 per cent reported a slowdown of sales and a diminished interest on the part of prospective buyers. In December unsold houses averaged 2.5 per builder as compared to an average of 2 per builder in February, 1949.

Portland Installs New Officers

Herman A. Schmitt was re-elected president of the Portland Home Builders Association at their recent election. Other officers named include Palmer Biggness, vice president; Frank D. Evans, secretary-treasurer, and Sanford J. Langoe, sergeant-at-arms. The new officers were installed by Edwin Sandberg, regional NAHB vice president and a past president of the local chanter.

Will Fromme was elected national director, succeeding Ralph Harris, Sandberg and Schmitt are the other national directors.

The executive board is composed of T. B. Winship, Arthur Hansen, John J. La Porte, Alford Norbraten, Al Disdero, George Welby, Frank Payne, Edwin Sandberg, Frank Evans, Herman Schmitt, Ralph Harris and Palmer Biggness.



IT'S DONE WITH MIRRORS! Retiring President Herman A. Schmitt of the Portland Home Builders' Association hands over the gavel to President-elect Herman A. Schmitt while Palmer Biggness, new vice-president (right), and Frank Evans, new secretary-treasurer (left), look on.

Legislators Visit Revere Model Home



MAURICE J. FISHMAN, new president of the Home Builders Association of Greater Cleveland, discusses building plans with State Representative James M. Carney (left), and Ohio Congressman-at-large Stephen M. Young. The scene is the much-visited Revere Model Home, located on a newly-started 1200 home project in the Cleveland area. Fishman is president of Precision Housing Corp., which launched the project.

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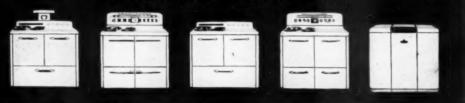
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E D I T O R I A L

Livability and Low Price

NO ONE should quarrel with the motives behind the industry's effort to produce houses for low-income families. The motives are laudable, and so are some of the results. But, there is room for serious criticism of the manner in which the problem is being approached by many who are studying it. All too frequently, three false approaches are being used.

The first of these is reducing living area unreasonably. The second is stripping a house—offering it for sale without insulation, some of the interior doors and trim, window shades, door bell, refrigerator, range, hot water heater, and other items viewed as necessities. The home buyer has to purchase most of them anyway, and usually on 21-month terms that jeopardize his ability to meet his payments on the house. The third is reducing the quality of construction to a point where the house is not worth any amount of money, however small. Producing low-price houses on any one or a combination of these bases is simply producing sub-standard housing and false economy which will please no one.

Any approach to developing houses within the reach of low-income families which does not start with adequate size, quality construction standards, and assured comfort through fully equipped modern kitchens and bathrooms, efficient heating systems, including insulation, and other items which are economies in and earmarks of contemporary American living, is a false premise, the results of which cannot be afforded by either the home building industry or the lowincome buyer. If the price and terms of purchase of houses which are livable by modern standards are now too high for low-income families, prices will be adjusted downward through competition, and purchase terms must be eased. No sacrifice of values is necessary or desirable. The return of a balance between supply and demand for materials, service, and labor is, as always in a free economy, bringing about a competitive condition that already is reducing costs at all the necessary manufacturing, distributing, and building levels. Since few lowincome families even can amass a sizable percentage of the cost of a house to use as a down payment a financing system can and must be devised which requires only a token down payment.

These are the elements which will reduce prices, simplify purchasing, and bring livable houses within the reach of many low-income families. Let us have low-price houses, but not by all means. Let us have them by all means except sacrifice of modern living standards. Let us establish a fixed policy of refusal to compromise livability, and then bring the prices of livable houses down to an irreducible minimum by eliminating wasteful practices. There is a cost, probably not yet determined, below which no house should be built.

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National Home Week



Here is a suggested outline of procedure for observing this major annual national event in communities of all sizes. Observance this year will include broad representation of all segments of building industry

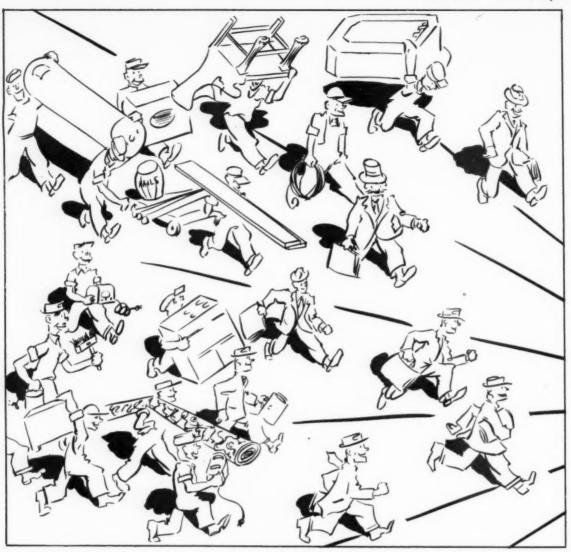
NATIONAL Home Week has already become a major annual national event. Staged for the first time last September, it reached such heights of success as a means of focusing the public's attention on activities of the home building industry that a much broader representation of industry segments will participate in 1949—September 11 to 17.

For years builders have erected and shown demonstration houses, furnished and unfurnished. Each builder opened his particular house in his own community whenever he had it completed for showing. There was no coordination between the various communities in this type of promotion. With the inauguration of National Home Week it is now possible for home builders in all sections of the nation, in large and small communities, to plan and erect demonstration houses ready for opening on the same date. For the first time the home building industry has the opportunity to exert a powerful impact by staging one huge, nation-wide home demonstration week, permitting the use of all the national and local publicity and promotional mediums with a single, well-coordinated program of public relations.

The demonstrations should cover all phases of home building. They should include projects under construction as well as completed homes. The public is always interested in building operations and National Home Week opens the door to telling Mr. and Mrs. Consumer the full story of how home building is done today.

Promotion and publicity for the industry starts in the spring with the announcement of the dates of National Home Week. Last year this was done in April and from then on, in all communities where the week was being staged, there were regular newspaper stories, radio programs, speeches and other types of consumer contact promotion carried on until the whole was climaxed with the actual opening and showing of the houses in the various communities early in September.

Although promotion on the 1948 Week was late in getting under way, reports from 40 cities and towns revealed that approximately 3,000 homes were exhibited in the communities reporting. These houses were visited by more than a million persons. About 19 per cent of the homes shown last year were furnished. A survey of newspaper publicity and advertising reveals that about 50,000 column inches were used in the Sunday editions preceding the opening of Home Week in 36 cities. This count does not include space devoted to National Home Week or the housing industry before the opening date or during the week itself. More than 60 radio broadcasts and at least two television shows were also tied in with National



NATIONAL Home Week focuses the public's attention on all products of the industry

Home Week in 1948.

Because National Home Week is co-ordinated public relations by thousands of large and small business establishments scattered in every nook and crossroad of the nation, it has the effect of spotlighting all these units as a unified industry with a single purpose—to build more and better houses more economically for the nation's citizens. The same general theme can be used in every area, thus permitting the issuance of releases and statements for the press and radio from NAHB's Washington offices for use in all localities. Bulk of the news and statements, however, should originate locally and did in the 1948 Home Week promotion. The program can be co-ordinated from the Washington office but actual promotion and activation of the Week must be done locally by each individual community or NAHB Chapter.

The outstanding success of the 1948 National Home Week has inspired many of the nation's leading advertising agencies and manufacturers to contact NAHB to make certain they can theme their advertising and promotion in the coming months with the 1949 Week. Space buyers and advertising managers of firms manufacturing home building materials, equipment and furnishings are already deep in plans to use the Week as a means of better acquainting the public with their part in helping builders produce houses for Americans. This will be done in most cases by manufacturers contacting their local distributors and urging them to work closely with the local NAHB chapters or committees staging the week in their communities. Several manufacturers of home equipment and building materials are arranging special consultation facilities to furnish wellinformed advice on National Home Week promotion tie-ins promptly to their distributors and dealers.

Several appliance manufacturers already have contacted local chapters and builders requesting installation of all-electric or all-gas equipment in National Home Week demonstration houses in a number of communities. Some heating equipment manufacturers are likewise making arrangements to have their units featured during the Week. Producers of other equipment and a host of building materials have already recognized the wonderful potentialities for graphic and intensive demonstration of their products with the builders. Where local distributors have not been contacted by their manufacturers to tie in with National Home Week promotions in their communities, they should immediately ascertain what the policies of their firms are regarding National Home Week promotion and request participation. Information on any phase of this part of National Home Week promotion can be obtained by contacting Walton Onslow, public relations counsel for NAHB at 1028 Connecticut Ave., N.W., Washington, D.C.

Mats or glossy prints of the National Home Week insignia are available from Onslow's office. Advertisers can not only theme their ads to tie in with port" w tional H the insig and the idea of carried o chandisin traffic d nothing facturer producti home b complish prise sv they wi achieve nomical All of

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in with the industry's "progress renort" which is climaxed with National Home Week, but can also use the insignia regularly between now and the close of the week. This same idea of featuring the Week can be carried out in folders, mailers, merchandising cards, window displays, traffic displays and billboards. If nothing more is done by some manufacturers, they can show how their production efforts are related to the home building industry and its accomplishments under the free enterprise system. They can indicate how they will continue to help builders achieve even better housing at economical prices.

All of the above deals with work at the national level—work done by the Washington headquarters offices of NAHB. Latest reports indicate that the national offices of associations akin to the home builders are making extensive plans to cooperate on the national level in the promotion of their particular phases of National Home Week. Bankers, real estate groups, retail building material dealers and others will find their national headquarters forwarding ideas and material for use in tie-ins with NHW promotions.

As stated earlier, however the real work and actual success of National Home Week depends on the activities of the local chapters and committees in charge of each community's observance. The degree of success of the national program hinges directly on the enthusiasm and quality of work done by the local chapter heads and membership. Members of a small chapter in a small community might feel that their little promotion on a small scale will not mean much in the national picture. This is a false assumption because if it had not been for the outstanding effort by each small builder in the nation, along with larger ones, the industry today would not have the fine record of postwar accomplishment in home building which has been recorded. Likewise in National Home Week, it is the cumulative efforts of a host of small demonstrations, along with large ones, which in the aggregate will leave a lasting impression of accomplishment and ability to produce in the minds of the public in all sections of the nation-in small communities as well as large cities. The power of mass demonstration must never be underestimated by any member of the industry and National Home Week is the one opportunity for mass demonstration of accomplishments of which the industry is

justifiably proud.

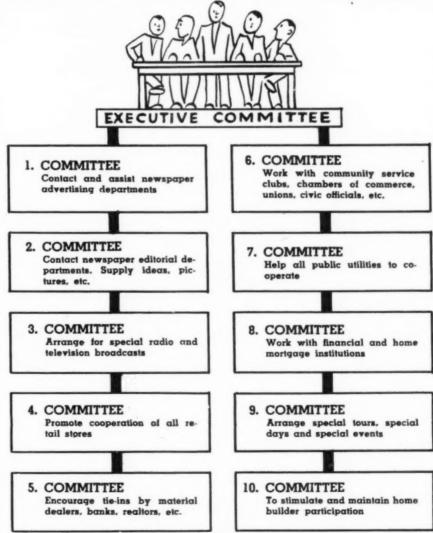
Where there are duly constituted local chapters of the National Associ-

ation of Home Builders, the procedure in staging Home Week in those communities falls into a fairly general pattern. The general pattern recommended, however, is flexible and should be considered so by those staging the Week. Changes to fit local conditions should be anticipated wherever possible and included in the master local plan from the beginning. Aggressive newspapers, radio stations, local organizations and individuals vary in every community. Consequently, each local NAHB Chapter setup on National Home Week must necessarily vary some to properly integrate all these factors in a successful demonstration during the Week. Following is a suggested organizational setup:

Appointment by the local chapter president of a small, but aggressive committee to plan and stage National Home Week is step number one. This should be a small committee made up of recognized leaders and workers in the industry locally, men with ability to work with other organizations

and businessmen. These committee members should also represent a good cross section of chapter membership, covering all segments - financial, architectural, operative and small builders, building material retailers and real estate operators. If the chapter is blessed with one or several members with especially good contacts in the newspaper or public relations fields, with other associations or those well-known favorably to the general public, such individuals should be able to help materially in the long range planning and staging of the Week. The chairman of this general committee should be an individual with persistence and ability for remembering and disposing of details. Of prime importance, however, is the chairman's ability to enlist the active support of others in the effort. The manner in which this general committee functions is all-important and its work is not easy.

First job of the local Home Week Committee is to get together with all the builders in the community and



ALTHOUGH this suggested committee setup is for large centers, it can be used as a pattern for small communities, eliminating some of the subcommittees and combining the duties of others. If the community is small enough probably the entire job of promoting National Home Week can be directed by those on the executive committee

America

obtain their support in staging the demonstration. A list of the builders who will participate and the types of houses they will have ready for showing should be completed as soon as possible. This list and the descriptions of the houses comprise one of the prime tools to use in enlisting support of other segments of the community in putting on the show. This



TIE-UPS with newspapers are essential

also gives all concerned an opportunity to visualize the scope and potential of the local Home week promotion

The Home Week Committee should also appoint a number of subcommittees. These may be headed by individual members of the main committee or by other members of the local chapter. Between the main committee and the subcommittees a good portion of the local chapter membership should be given some representation, although it must be taken for granted that the actual work and worry of the project will fall on the shoulders of just a few individuals.

It takes about ten subcommittees to properly round out an organization for National Home Week in a large city. The number and duties of these committees change as the size of the communities change, but for purposes of showing the large and small setups, the suggested plan for the large city is offered here. These subcommittees

1. Promotion liaison between NHW headquarters and newspaper advertising departments. This committee will channel ideas to and cooperate with the advertising salesmen of the newspapers to help them develop special sections and advertisements themed to National Home Week. The successful newspaper advertising promotion usually culminates with a special section issued on the Sunday preceding the opening of NHW

2. One individual or several, preferably one, whose sole committee assignment is to thoroughly acquaint newspaper editorial staffs, particularly real estate editors, with all phases of the Home Week promotion in the community. This contact for newspapers should have a wealth of source

material on hand-facts, figures and photographs or ideas for photographs which will help writers and reporters in preparing stories on the entire promotion or on any particular phases of it. The national public relations office will help materially in this respect by forwarding regular releases on National Home Week from the national viewpoint which can be supplemented with information on the local angles.

3. A committee should be placed in charge of all contact with local radio stations. This individual or group, like the one contacting newspapers, should arm itself with a wealth of source material and ideas for broadcasts, including television, which will help tell the story of National Home Week in the community. Advertisers in businesses allied with the home building industry can plug the Week in their programs and the special events departments of radio broadcasting firms can be supplied with ideas for special broadcasts. Here again the national offices will be of considerable help to the local committees by supplying suggestions and prepared manuscripts which can be adapted to local situations.

4. In cities there is usually an organization representing the leading retail stores. In smaller communities



SPECIAL broadcasts publicize the Week

there is a counterpart of such an organization. The committee in charge of Home Week should delegate the job of contacting this segment of the community to a special committee whose assignment is to solicit support and tie-in activities on behalf of National Home Week's observance in the community. Special window displays, special mention of the event in advertising and affairs planned around the observance of NHW are some of the accomplishments possible here. It is especially important to elicit support of the retailers who handle home furnishings and equipment where a number of the homes to be shown are to be completely furnished. This is the type of tie-up which was made in Chicago in 1948 with the Retail Furniture Dealers Federation which cooperated so well with builders in furnishing many of the homes displayed

5. Another committee assignment is to work with associations in fields closely allied with home building such as savings and loan groups, retail building material dealers, real estate boards and banks. All such firms have an interest in National Home Week and their interest can be activated locally by cooperation. The national organizations representing these groups are planning tie-in promotion material and ideas which will be available to local organizations.

6. An important subcommittee assignment includes contact with local service, lodge and church organiza-Veterans groups, women's clubs, Rotary, Kiwanis and other service clubs, labor unions, Chambers of Commerce and similar groups should be contacted and urged to plan program and activity tie-ins with National Home Week in the locality. A series of talks by some builder or member of the local chapter before such groups outlining the meaning of National Home Week and detailing what is being done locally should be of inestimable help in publicizing the

This committee, or some other committee or individual, should have the specific assignment of working with the mayor's office and with other municipal officials to obtain their wholehearted cooperation. County and state officials should also be contacted. Last year NHW was officially proclaimed by mayors in 25 large cities and the governors of nine states. A mayor's proclamation for the week is essential and the governors of the states will undoubtedly cooperate to the extent of issuing a proclamation for the week in 1949. A suggested proclamation is duplicated on these pages.

7. Public utilities play an important part in the home building industry. A subcommittee should be given the sole assignment of obtaining cooperation and helping the public rela-



TELEVISION shows add interest

tions departments of all the utility companies-telephone, gas and electric-in capitalizing on the promotion of National Home Week. Advertising and window displays can be themed to the local observance of NHW. Public utility firms can use the Week to stress adequ produ to w senti shou

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STATE OF INDIANA

EXECUTIVE DEPARTMENT INDIANAPOLIS

EXECUTIVE ORDER NO.

PROCLAMATION

NATIONAL HOME WEEK IN INDIANA

TO ALL TO WHOM THESE PRESENTS MAY COME. GREETING:

WHEREAS. National Home Week will be celebrated throughout the United States this year during the period of September 5th to 11th, and

Now, probably more than at any other period during our history, there is a dire need for housing and homes for our people, and WHEREAS.

This shortage, caused by the turning of all labor and materials to the war effort during World War II, is beginning to improve steadily, with more and more materials becoming ayailable and with more and more houses being built by private builders, and

WHEREAS, The home is one of the foremost, if not the most, cherished institutions in the American way of life, and is so essential to our stability and progress as a Nation and as a people.

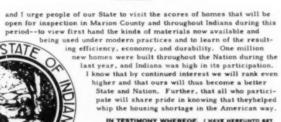
NOW, THEREFORE, I. Ralph F. Gates, Governor of the State of Indiana, do hereby officially proclaim the Week of

SEPTEMBER 5TH to 11TH, 1948

AS

NATIONAL HOME WEEK

in Indiana



IN TESTIMONY WHEREOF, I HAVE HEREUNTO SET MY HAND AND CAUSED TO SE AFFLIXED THE GREAT SEAL OF THE STATE OF INDIANA, AT THE CAPITOL, IN THE CITY OF INDIANAPOLIS. THIS 20th DAY OF July

stress the importance of installing adequate facilities for the use of their products or services in all new homes.

8. In addition to a subcommittee to work with the associations representing financial institutions, there should also be a special subcommittee to help coordinate the promotional efforts of banks and savings and loan associations in tying in with NHW. With the entire community focusing attention on homes and the home building industry preceding and during the Week, those responsible for the financing of the homes should not miss the opportunity to stress the value of home ownership and the services offered to make it easy for the average person to buy and pay for a home

9. Another subcommittee should be charged with the job of arranging special tours of home building operations in the community preceding and during National Home Week.

These are especially valuable when arranged for clubs, lodges, various business establishment executives and other similar groups. Tours for newspaper and publicity people should be handled by the subcommittee assigned to work with those groups. This same subcommittee handling tours can also arrange other special events which may take the form of contests, competitions of various sorts, public relations stunts, band concerts or any number of unusual events to stimulate interest and get attention focused on the promotion of NHW.

In some localities it may be desirable to designate certain days of National Home Week as "special" days. If the local situation is adapted to it, this committee may set certain days aside for certain communities within a metropolitan area or within a county. For advertising and promotion purposes it may be desirable to designate the days according to various rooms or equipment in the house. For example: "Kitchen Day"; "Living Room Day"; "Laundry Room Day"; or the day could be named "Plumbing Day" "Heating Day"; "Appliance Day"; et cetera.

10. Not the least important of the subcommittees is that assigned to the task of activating builder participation in the observance of NHW. This committee keeps tally on all the builders who have indicated their intention of having demonstration homes ready

In many cities .. PROCLAMATIONS ARE ISSUED



to open for the Week and keeps the main committee advised of progress. At times it may be necessary to call special meetings of the builders participating in the Week for the sole purpose of obtaining progress reports and assurances that all will be in readiness for the opening dates. This committee also keeps participating builders advised of developments affecting their part in the Week, opportunities for individual promotion and special tie-ins offered by manufacturers or local establishments of various

The above ten subcommittees are, of course, necessary only in the larger cities and even then the setup may be changed materially to suit local conditions and the type of talent available for staging the week.



VARIED displays are themed to NHW

The National Home Week promotion and tie-ins should not by any means be thought of as limited to large population centers. The event lends itself to participation by even the smallest community with only one or two builders, a lumber dealer, a bank and a few other business houses. Where there is no local NAHB chapter, the promotion can be handled by a committee of builders, working with other groups in the community, appointing committees and soliciting the cooperation of newspapers and other publicity and advertising outlets. Although the committee setup outlined above is for large cities, it can be used as a pattern for setting up organizations in small communities, eliminating some of the subcommittees and combining the duties of others, or if the community is small enough, the entire job can be handled by the main committee.

In some small communities where builders are not organized and do not have any common interests except competition, the lumber dealer or dealers can often head the movement to stage National Home Week. When this is the case, the same ideas as to promotion and planning for the event hold true, except that everything will be done on a smaller scale. Even where the local newspaper is a weekly, it is still possible to plan special advertising and special issues built around National Home Week, and local builders, lumber dealers, bankers, and others interested in the home building industry can combine their promotional resources to help the local newspaper publicize and advertise the event. There may be but one house in a small community that can be opened and shown during National Home Week, but even where this is true, it can be done successfully to tell the story of the industry for all interests doing business in the community.

Individual home builders participating in the observance of National Home Week should not depend solely on local committees for ideas and direction in staging the week. There are a host of things to be done which no committee can do for any builder who desires to have a successful demonstration house open during the week.

First of all he must decide early in the year the type of house he will build for demonstration, where it will be located, and whether he wants it furnished. Where a builder can do it, it is desirable to have several houses in different stages of construction on display, one of them completed of course. The incomplete houses should be open for inspection by the public to show the potential buyers how a modern house is put together, what goes into it, and the skill it takes to complete it. Where skeletonized houses are shown it is highly desirable to put up small signs labeling the various house parts such as studding, sheathing, rafters, joists, subflooring, rough plumbing, wiring, or furnace ducts, to

make the showing more educational. There might even be an easily readable, briefly written description somewhere about the uncompleted house describing just what stage of construction has been reached and what remains to be done before the house



ON-SITE building demonstrations are good

can be made livable.

Regardless of the size of the community in which the builder is showing his house or houses during NHW, he should make the location easily accessible for visitors. This does not necessarily mean that it must be located on a main highway close to heavy traffic arteries, although that is an ideal place to erect demonstration houses when feasible. It does mean, however, that roads and walks to the house should be easily negotiated by drivers or pedestrians. First impressions are lasting impressions and if a builder forces individuals to drive over rough, dusty or muddy roads and then walk through rough dirt or

fective in advertising any model home. The job of spotlighting should be done properly, however, or not at all. This type of promotion is especially valuable if the home is anywhere near arteries which carry heavy automobile traffic.

The routing of a large number of people through a model house, especialy one which is furnished, is always a problem. The floor layouts of some houses make them especially well suited for demonstration purposes. Two such houses are included in the Blueprint Series in this issue of American Builder

In showing houses during National. Home Week, builders should keep in mind the basic purposes for the Week and what it is planned to accomplish. Each builder may have his own particular interpretation of the national problems as they are related to local situations, but basically the promotion is a "progress report" to the nation on what its home builders have been doing to house the nation's citizens; how builders are making it possible for more individuals to own better houses in better planned communities. It is an opportunity for the industry to show that it is made up of firms and individuals who are sincere in the pursuit of their chosen field; that



PARTIALLY completed houses with the parts labeled make an interesting exhibit

mud to get to a house, the reaction to the demonstration will not be as good as if no trouble is encountered traveling to or from the location of the house.

Easy access also means proper publicity and advertising carrying good directions to a model house. In large cities it is desirable to prepare a small map showing routes to the location of the project or model house to be used in advertising and publicity.

It is always desirable to prepare direction signs for model houses on display. They should be erected in strategic locations along the routes to the showing. These serve two purposes-to direct visitors to the houses and also to advertise the showing to all who happen to see the signs.

A few well-placed spotlights will prove economical but extremely efhome builders as a group are not out to capitalize on the dreams and wishes of home seekers but are honest in trying to help them get the kind of a home they want and can afford to buy.

At the same time National Home Week provides a splendid opportunity to dramatize the technological side of home building-all the details involved in erecting a house, the materials used behind the walls, under the floors and in the attics which most persons; especially women, rarely have an opportunity to study. Builders should never discount an opportunity to demonstrate the skill and experience it requires to plan, build and sell houses acceptable to the public. Nor should they deny their tradesmen an opportunity to show how much skill and training they must have to put a house together with modern materials

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using modern techniques. The carpenter, the mason, the plumber, the heating contractor, the electrician and others should be given a chance to show how important they are in the huge task of housing the nation.

National Home Week can be used to throw the spotlight on modern methods of financing home ownership. With the public's attention focused on homes and home ownership during National Home Week all stops should be pulled on the financial side of the proposition. It should be remembered that this is of prime interest and importance to every average prospective home buyer.

Modern home equipment can be highlighted during National Home Week. The new heating systems, the newest plumbing, wiring and lighting, laundry, and kitchen equipment of all types, and the host of other components that are required to complete a modern home can be emphasized.

By working closely with furniture stores, many of the demonstration homes can be attractively furnished throughout. When this is done, the furniture retailers usually help promote National Home Week in their locality with advertising, window displays, and publicity.

The excellent newspaper support rendered National Home Week promotions last year and the fine results achieved illustrate how well this program is geared to cooperate effort between the industry and newspapers with mutual benefits accruing to both. Through the efforts of National Home Week committees a large amount of material was supplied to real estate editors and a good variety of tie-in advertising was obtained. Both the advertising and editorial departments of newspapers were very active in some cities. As stated pre-



CONSUMER magazines feature NHW

viously, however, this does not mean that the Week's promotion should be considered as suitable only for large cities. It can be done in a community of any size on a scale geared to the potentialities and facilities of the local situation. A few examples of what was done in the way of NHW promotions in cooperation with newspapers are cited below. Many of the ideas used in the large metropolitan areas are equally adaptable

to small community newspapers.

Probably the largest job on a special newspaper section was done by the Chicago Tribune, which, working with the home builders and the retail furniture dealers, co-ordinated home building and home furnishings in a combined Festival. The special section included advertising by firms in every phase of the home building and home furnishing fields. Well balanced editorial material proved inter-



CONTESTS add zest and interest

esting reading. The volume of advertising in the Sunday issue carrying the National Home Week special section broke all records for the Chicago Tribune up to that time.

In Albany, N.Y., a substantial NHW section of the Times-Union was devoted to the big event and emphasized the model homes which were being opened to public inspection. His theme was well developed in the advertising. Gracious living and the benefits of home ownership were stressed in advertising copy.

An outstanding job was done in Indianapolis. In comprehensive NHW sections in the Star and the Times, the story of the great home building volume in Indianapolis and the nation was highlighted. The main theme of big production was co-ordinated with an extensive listing of model homes which the public was invited to visit. A novel feature was a full page map of the city showing the locations of model homes, keyed according to the firms which built them.

The Newark Sunday News brought out the story of home building progress in a large NHW section. Scenic views of a number of home developments with homes available to the middle income groups highlighted the section. Promotion of rental housing projects received prominent display.

A building boom was the keynote of the Salt Lake City Tribune's NHW section. In a broad frame of scenes on the cover page, streamlined production methods were shown and up-to-date techniques pointed out.

The Fort Wayne, Ind., Gazette took a note from the pages of the nation's leading community developers

and pointed up the advantages of modern land planning. Every major advertisement in the special section hammered hard on the land planning idea. The Fort Wayne News-Sentinel carried a similar section giving full play to the NHW story of progress.

The Dayton, Ohio Journal framed a beautiful two-page spread showing a map of the city with individual photographs of feature homes in the projects opened to the public. A main theme of the section was improvement of modern home equipment. The Dayton Herald carried a similar big section.

The Amarillo, Texas Globe-News featured the home as the most important possession of the average man. A well-balanced advertising section contained large displays by utility companies as well as home equipment dealers.

The Cleveland Press showed a strong appreciation of the merchandising aspects of National Home Week. Numerous advertisements carried references to model homes which had been supplied or equipped by the advertiser. Utility companies used extensive space and featured photographs of new homes.

The Sacramento Bee highlighted the home-of-tomorrow in its NHW section. Emphasis was placed on technological progress and the better items for homes which are being produced. Advertisements showed good use of the progress theme, pointing up the advantages of good design and the ways to build personality into the home.

These special newspaper sections



FOR the success of National Home Week

and editions, plus all the publicity preceding the official opening dates, created intense public interest in the communities where the week was observed in 1948. Radio, television and special events themed to the subject, along with all the advertising and publicity, brought record crowds to view the houses on display. The 1949 observance of National Home Week will undoubtedly be of more value from a merchandising standpoint. With the increased interest and greater number of communities participating, it should show record accomplishments in further educating the public on home planning, construction and financing as it is being done the best way in the world—the American way.

Here's the Evidence—



That builders can produce housing for those in the low income brackets without sacrificing quality or style, provided financing is adequate and the requirements of codes and zoning do not unnecssarily force prices too high

O PROVE that the private building industry can produce good low-cost homes within the budget of families of average or below average income, 34 home builders of Detroit are cooperating in an Association-sponsored lowcost housing project. Last summer officials of the Builders Association of Metropolitan Detroit decided that a lot of talk about what could or could not be done in the way of low-cost housing would never prove anything. It was then the decision was made that the best way to prove what could be done was to do it. At the same time the Association decided to demonstrate and dramatize all the problems inherent in efforts to complete good small houses in a good neighborhood at prices ranging from \$6,900 to \$8,500 including lots.

George A. Duke, president of the Detroit Association and a participant in the project appointed Arvid C. Petersen as project chairman. Petersen has directed the project from the beginning, assisted by committees in charge of land, finance, design and public relations.

There are 137 lots in the subdivision on which 90 houses are now completed or under construction. Thirty-five more houses are scheduled to start this month. No lots are less than 50 feet in width with

some as wide as 68 feet. Water, sewer and sidewalks are in. Streets are graveled and well drained.

The design committee selected six different floor plans and three front elevations on each floor plan, to produce 18 different houses. Designs are by the Petersen-Pollman-Palmquist architectural firm of Detroit.

After the land was assembled by the Association, the lots were assigned to the builders by drawing numbers. When a builder drew a lot number he was to build the house which the committee had designated for that lot.

A few of the participating builders have erected more than one house in the project. The extra houses have sold readily and are occupied. All are of conventional frame construction with good quality materials and workmanship throughout. Interiors are dry wall. Heat is supplied by oil-fired forced warm air units. Practically all of the houses are basementless and the crawl space under floors is being used as a plenum chamber for warm air, thus creating a certain amount of radiant heat plus that which enters and circulates through the rooms from registers located in outside walls at floor level. Cool air is returned to the heating unit from ceiling level. With this system there is less than three degrees variation between the floor and ceiling levels.

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The chamber under the floor is created by insulating the foundation walls with rigid board well below grade. In addition a mineral wool blanket is dropped down between the trimmer and joist. Floor of the plenum chamber is well above grade, built up with a bed of sand at least two inches thick and asphalt saturated felt above that. FHA approved the project for both Title I and Title II mortgage insurance.

The project is located in Royal Oak, adjacent to Detroit, and was welcomed by that municipality although it took considerable negotiating between the committee and the city officials to iron out some code difficulties to hold costs down.

The undertaking was not sales promotion in itself. Many of the models could have been sold scores of times but they are being held open for visitors. Some builders are selling duplicates of the models in other locations but the houses in this location will be open indefinitely.

What the builders are proving, in addition to the fact they can and want to build good low-cost houses, is that present mortgage finance

THE two street scenes below are in the Detroit Home Builders' low-cost house project



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arrangements are inadequate for this type of housing for the thrifty families of ambition; that local zoning ordinances in most localities in metropolitan areas stand in the way of providing such houses; that building codes generally in vogue either add unnecessarily to costs or put prohibitive barriers in the way of building low-cost homes of this type.

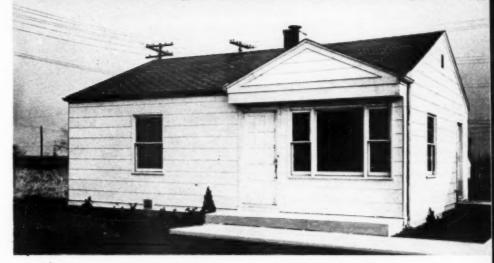
While the project was approved by FHA for Title I as well as Title II no mortgage finance has become available for the Title I type of partially-completed houses. Accordingly, few have been built and no more will be started. FHA has, however, insured mortgages on several Title II houses where the buyer is doing his own interior

decorating.

In discussing the financing problems, Arvid C. Petersen, project chairman says, "By raising the maximum amount to be included in the 95 per cent FHA insured loan to \$8,500 and making loan appraisals on the basis of actual current costs, a mortgage of \$8,075 could be made on an \$8,500 home. This would require a down payment of only \$425. By placing the amortization period on the same 35-year basis as afforded rental housing, monthly payments, including interest, would be \$34. The federal government should make

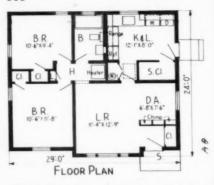






SIX floor plans were selected for the project by Detroit builders. Above left is the basic plan and photos right show three elevations of that plan





PLAN "B" with one of the three elevations used in the project. One builder's price on this house with a washer and dryer, but not including the lot is set at \$6.625



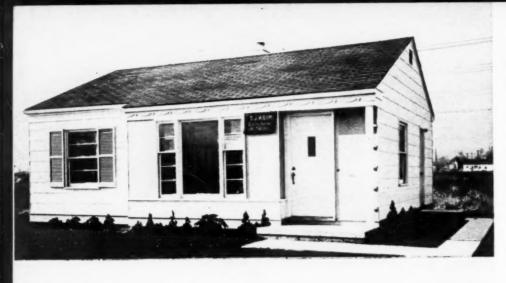
THIS is one of the three elevations on Plan "C". A price of \$6,750 without a lot, but including a washer and dryer, is being quoted by one builder. Average price of lots in the subdivision is about \$750. Plans of these houses may be obtained from Home Builders Association of Detroit

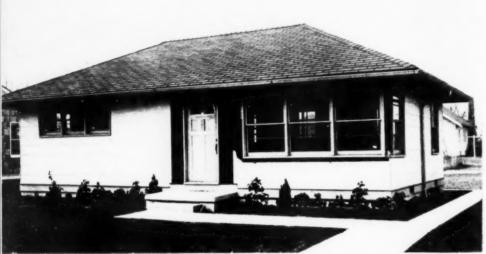


PLAN "E" is the only story-and-a-half house included in the six sets of plans. This is one of the elevations on this model. priced at \$7,300 without the lot, but including the automatic washer and dryer



PLAN "F" is popular with visitors to this usual homes demonstration project. Price on this model, set by one builder—\$6.700









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possible the same credit to the home buyer who wants a small house, as it does to the builders of rental property. This is the taxpayers' money which is being used and the home buyer should not be penalized or discouraged. The small houses, which sometimes do not have enough square footage to meet minimum code requirements, are nothing more than apartments in single buildings with the added attraction and livability of a goodsized lot in a good neighborhood. The small apartment is eligible for good loan insurance but the home is not."

To illustrate this point dramatically the Association itself provided an expansible house in the project. The basic unit, 24x24 feet, which has all the livability of an average apartment and would pass codes as such, could not be built in Royal Oak because minimum square footage there is 700 and the basic unit has only 576. It was built expanded.

In regard to this house, the Association says: "Again we have demonstrated how the home seeker

THIS is one elevation of Plan "D", most expensive of the one-story houses. Like all the other floor plans, this model has three elevations. Price by one builder—\$6.800





FLOOR plan of the expansible house, with the basic 24x24-foot unit outlined. Addition of bedrooms, dining area and garage made it large enough to pass minimum municipal code



PHOTO of expanded expansible house about completed. This house was sponsored by the Association to demonstrate possibilities using plans for expansible houses

is hampered and restricted. Local governments dictate to him the size of house he may have and tell him what he must have in it. This is in spite of the fact that many families like to pay as they go and to expand a home as occasion demands."

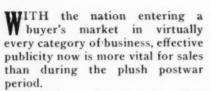
George A. Duke, president of the Association said, "Home seekers frequently ask us to duplicate these models on their own lots in the Detroit metropolitan area. This brings them, sometimes, face to face with the fact that they must build a \$10,000 or higher priced home rather than one priced between \$6,900 and \$8,500 because of building codes in force. Codes should be functional."

PUBLICITY

Important Aid to Selling

By Charley King

Builders and land planners, now more than ever, need effective publicity, to add sales impetus. How to go about it is explained by this expert in the field



Experience demonstrates that effective publicity will do a great deal to boost sales when it supplements paid advertising. Real estate editors are aware of this. During a sales campaign, of course, an advertising schedule is essential for obtaining news space.

In buying space, the advertiser is entitled to a certain amount of so-called free space. The operator who retains a press agent gets the amount of news space to which he is entitled and, frequently, more; whereas operators who do not have a press agent very often do not obtain their full share. Leaving the writing of publicity accompanying advertising to the real estate editor is not always best because editors are busy people.

Until now, too many land developers and builders have not indulged in sustained publicity because sales were on an ordertaking basis and they did not think they needed it. The operators who maintained publicity and public

relations programs during the lush period, when it was easier to pay for, are just that much ahead of those now jumping on the publicity to help sales. One operative builder, who kept selling his houses virtually without advertising, and without salesmen, only escrow people, said he hired a press agent to get the maximum space because he wanted to be so well known that when the pinch arrived persons desiring to have a home built on contract would remember him.

Properly geared publicity can start selling homes ahead of the advertising campaign, a fact too frequently ignored by operators. The common practice of builders is to wait until the eve of starting an advertising schedule to start publicity. Properly prepared and published news releases can start selling houses far ahead of completion. Copy concerning subdivision plans, construction starting date, and construction progress reports can be used. Recently a news release schedule about construction progress of a large tract drew so many prospects ahead of completion that 100 homes were sold before the sales program started, for a publicity cost of less than \$3 per



CHARLEY KING

house, which is exceedingly low.

To again use the foregoing tract

as a typical example, this is a general picture of advance news releases:

- 1. Article on site purchase.
- 2. Reports on planning progress.
- 3. Construction start date.
- 4. Letting of subcontracts.
- 5. Ground-breaking.6. Naming of tract.
- 7. Completion schedule, number
- of homes started per day.

 8. First street roughed in.
- 9. Nearing completion stage of first street.
- 10. Appointment of sales manager.

11. Announcement of terms.

During this period, publicity material is prepared for the actual sales campaign to accompany advertising. This includes artist's renderings of front elevations, or rear elevations if garden living is a feature. Photographs showing front elevations of completed houses. When the advertising schedule breaks, publicity and art are planted with the real estate editors for use on the opening week-end. Such spreads help bring out the prospects.

Such spreads have brought out



Rated as one of the top press agents in the field, Charley King is currently handling publicity for tracts in West Covina, Baldwin Park, Arcadia, La Canada, Southwest Los Angeles, Hermosa Beach, Rolling Hills, South Torrance and Long Beach, Calif. A former reporter, feature writer and columnist, King was a Washington,

D. C., public relations sergeant in the U. S. Marine Corps during World War II. Since the war he has been senior publicist, Columbia Pictures, Hollywood; regional information specialist, Civilian Production Administration; public relations director, Home Builders Institute, Los Angeles. Mr. King is at present free lancing.

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PHOTOGRAPH of house may be submitted to one paper, and rendering sent to another, but duplicate pictures of the same house should not be sent to different papers. Plans should be professionally drawn

from 9,000 to 12,500 persons on a week-end to tracts I have handled for GI sales. On more expensive stuff, as many as 3,000 in a day.

After the opening week-end, publicity stories are prepared with the objective of keeping the people coming, unless a sell-out has been registered at the outset.

At least one account retained me to get publicity primarily as a means of attracting deals to the office. They are happy over the results in this direction. Some of the best sites have come to their office as a result. They have had a wider selection of deals from which to pick and choose than they would have had otherwise. This account's next major project is traceable to publicity.

Publicity, properly handled, will enhance prestige and reputation. This everyone realizes. Material printed by real estate editors does this. Under this heading comes articles for or about clients in the various trade publications. Institutional publicity, which only indirectly concerns a project, does this. Institutional publicity is comment upon timely topics. Such a release for one client got him a telephone call from a lender who was a stranger with a mortgage commitment for 120 houses at a time when the mortgage pinch was tightening up fast!

Submitting Copy

The Los Angeles Sunday papers, to obtain the best break, should have all news copy and pictures on Tuesday before publication. This means that Monday becomes a rat race, especially with clients so scattered in sprawling Los Angeles County. It is necessary to contact each client to learn their sales experience over the week-end to guide

the angle for publicity releases for the next week-end.

It is my belief that the publicity which gets the best reception from editors is the one with the news peg. The publicity on behalf of a specific house or tract should be hung on this news angle.

After driving from 80 to 100 miles on Monday, I am home at my typewriter, preparing the basic release for each account. By 7:30 they are ready for my rewrite man to pick up. I hire him on a free lance basis. He is employed daytime by a local paper. He prepares a different version of each release for each Los Angeles paper (five of them in most The copy is marked unduped (not duplicated) or lead unduped. The editors do not have to rewrite it themselves. This saves them time and, I believe, wins a better reception from editors than carbon copying. I do use carbons, however, sending them to suburban papers on the list for each client.

The practice of unduping also applies to art releases. Rarely do I duplicate photographs or drawings, and do not duplicate captions. Editors like exclusive pictures, and it makes their pages look better when they do not have to use the same picture that appears in all other papers. If but one house, or one building is involved, I have it photographed from different angles to prevent an appearance of duplication. Some clients have scale models made. These are photographed at different angles.

Rarely do I submit the actual drawing of a house or building. My practice is to have it copied professionally, using glossy 8 x 10 prints for releases. Otherwise, the newspapers must have the art work photo copied.

In having renderings made, I

use Qvale, of Los Angeles, who specializes in such drawings. He is set up to make photo copies. He makes renderings from blueprints. Newspaper editors like his stuff.

For photographs, I have commerical photographers spotted in every section of the County. I use them when operating in their particular areas. It is not entirely easy to locate commercial photographers who can make pretty pictures of houses. The better pictures are, the more artistic, the better the reception by editors.

My practice is to always be supplied with pictures. You never know when an editor might need one

Prepare Adequate Volume

As for news releases, I make one a week on each client on the belief that if an editor wants to use a story, he has one on his desk. If he wants to use it, and you don't leave one, you miss a printing. All editors have paper baskets handy for the rejects. The major reason for editors not using all professionally prepared copy every week is space limitation, or an old or a new client is breaking a new campaign.

Every Tuesday I visit all the downtown real estate editors to leave "my bundle." I check pictures with them, for art is important. You get more space in the papers with good pictures. A photograph that cost \$5 can get space that would cost, in advertising, \$200 or \$300.

It is important to know what each paper will use. Some, for example, will not use anything except front elevations. Some have a policy that will permit use of informal photographs, like ground-break-

(Continued to page 216)

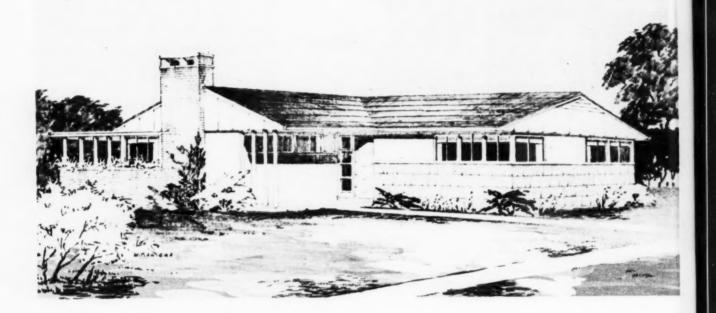
AMERICAN BUILDER

Blueprint House

Number 27

Walter T. Anicka, Architect

IN TODAY'S market the emphasis is placed on the two bedroom house. The L-shaped design shown below with its interesting facade meets all the needs of a small family





Conforming to Demand Adaptable for Demonstration

THE TWO houses that comprise this month's American Builder blueprint series are designed with the forthcoming National Home Week in mind

During this event, which is to be held the week of September 11-17, 1949, model homes will be open to the nation's buyers, and on-site demonstrations of building techniques will be held—from coast-to-coast.

In the above house, which has 1018 square feet exclusive of porches, Walter Anicka has incorporated features that make it adaptable for demonstration purposes. The plan is laid out so that a fixed line of travel can be maintained after entering the front door. Thus, the Home Show visitor may view or enter every room of the house without becoming embroiled in a traffic snarl. The control of traffic in the plan adapts favorably to normal household activities. Ease of cir-

culation is established without using any one room as an artery. The respective zones of the house such as living, service and quiet are accessible from the front hall.

The use of exposed vertical 2x4 posts in the design treatment, both on the exterior and the interior, is an Anicka feature. This is an inexpensive, yet effective method for treating the open areas of entrance and porch. The area above the china cabinets between living and dining rooms is handled in a similar manner.

Storage walls extending full height, from floor to ceiling, separate the two bedrooms. The bathroom is of minimum size to permit entry to the kitchen from the hallway. Ample space is provided in kitchen as well as dining room for eating purposes. All service facilities are located in excavated portion of basement.

Estimated cost of house, \$10,000.

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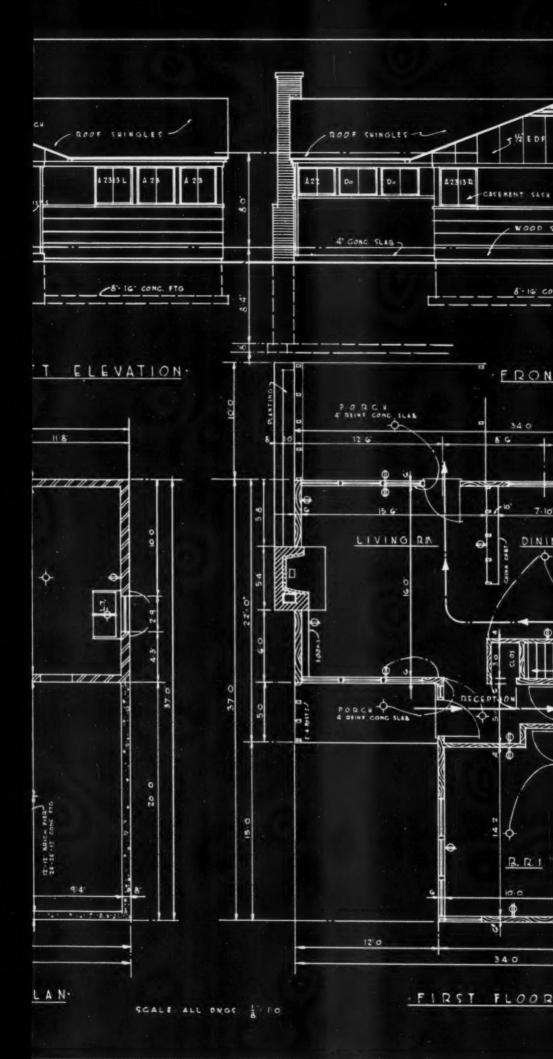
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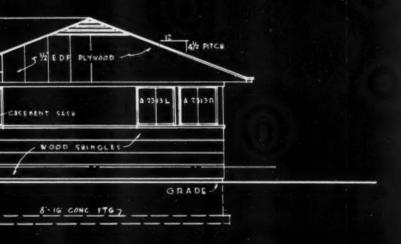
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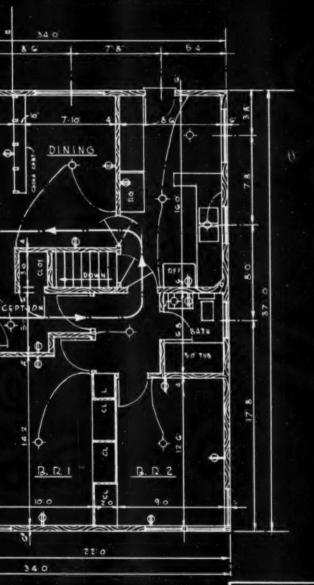
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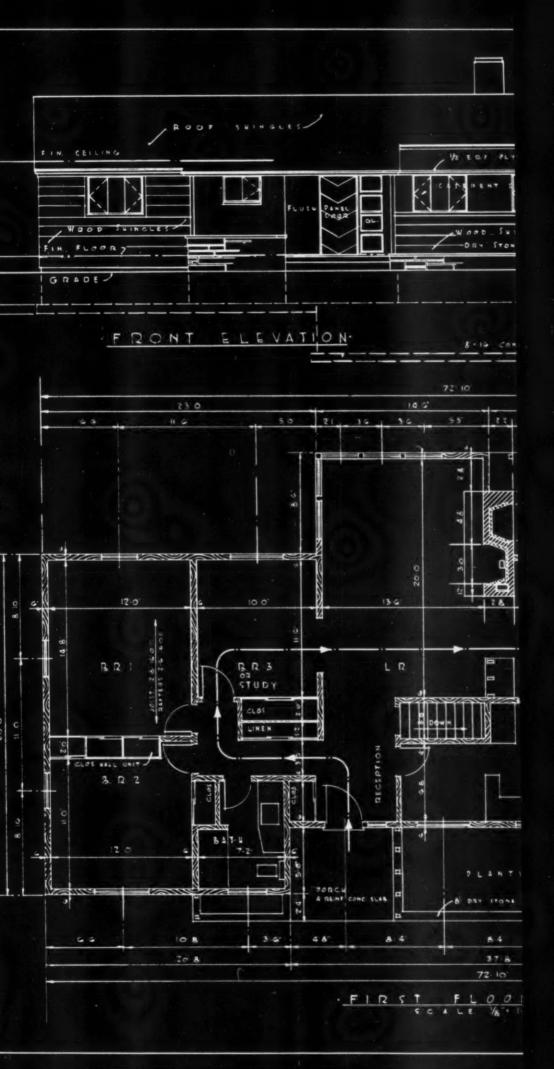
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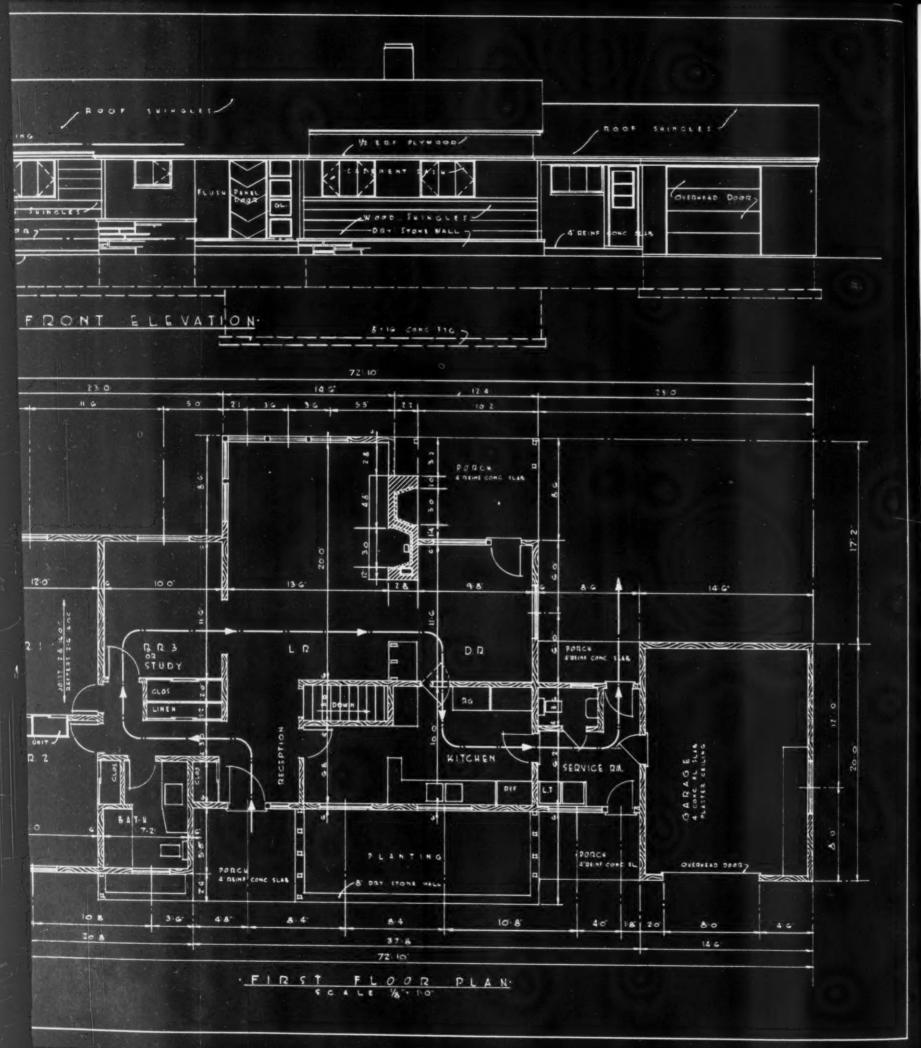
DESIGN No. AB 140

AMERICAN BUILDER BLUE PRINT SERIES

Designed By
WALTER T. ANICKA.
Ann Arbor,
Simmons Boardman Pub Corp. 105 W. Adams St., Chicago, Ill.







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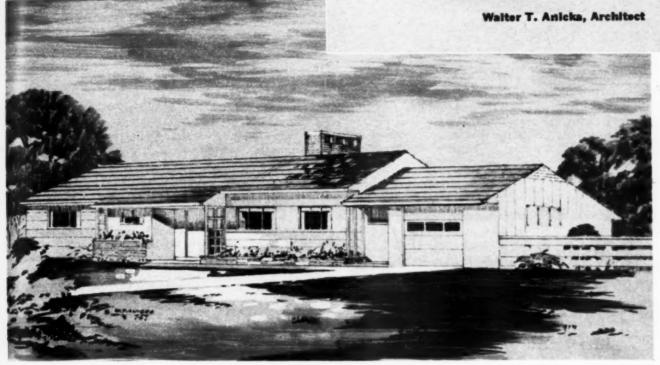
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A HOUSE with ample space for all facilities, shown below. This design with its low-pitched roof, in combination with various wall surfaces, can be adapted to any part of the country

AMERICAN BUILDER

Blueprint House

Number 28



Designed for Good Living Ideal for Demonstration

TYPICAL of the rambling type homes of the Southwest, is the second of the current blueprint houses.

Emphasis in the plan of this house, like its companion, is placed on circulation. In the event that the house is considered for use as a model during National Home Week, this feature will assure an unbroken line of travel for visitors through the various rooms. The suggested route is indicated on the floor plan by dotted lines.

A number of features characterize this house. Three bedrooms indicate its use for a growing family. Rooms are of generous size assuring comfortable living. Ceiling height storage closets serve as separators between bedrooms and halls.

The living room is well laid out. The circulation is all at one end, leaving the fireplace and window portion of the room confined to undisturbed assembly. This makes an ideal ar-

rangement. Kitchen is large with facilities for informal dining.

Service room adjoining kitchen and garage provides space for laundry tubs and powder room. Single garage with large work bench completes arrangement. The dual fireplace for living room and porch invites participation in outdoor living.

The exterior design conforms in general to the contemporary style that has been consistently featured by Walter T. Anicka, architect. The outside walls are of frame placed upon a concrete block foundation. Walls are covered with a combination of wood shingles, plywood and Lannon stone in an effective pattern, maintaining a horizontal sweep to the house proper, and reverting to a vertical effect on the garage. A partial basement is provided under living, dining room and kitchen. Estimated cost of this house is approximately \$18,000.



Cedar Shingle Demonstration House



Promoted by national advertising campaign the house presents both dealers and builders with cooperative merchandising opportunities

SUPPORTED by a large-scale program of national advertising and promotion, an attractive 5-room model home design is being given country-wide prominence in an ambitious and comprehensive project being launched by the Red Cedar Shingle Bureau.

The program centers around a well-designed moderate cost resi-

dence known as the Certigrade National Home, plans for which are being channeled through retail lumber dealers. The initial announcement of the program appeared with a full-page color ad in the April 9th issue of the Saturday Evening Post, in the April issue of Farm Journal, and in the spring edition of Small Homes

Guide, with a combined circulation of more than seven million. A second message featuring this home is scheduled for a June issue of the Post, with a third advertisement being planned for an autumn issue.

Designed by National Plan Service, Chicago, the Certigrade National Home is a three-bedroom, single-story design, representative of modern home construction in the moderate cost home field. The exterior combines the graciousness and dignity of early Colonial architecture with the rambling spaciousness which is closely associated with the modern Western or Ranchtype home. Exterior walls are designed for double-coursed cedar shingle or shake construction, and the roof likewise is of cedar shingles.

The efficiency of the floor plan is apparent in the full utilization of available space and the spaciousness that is achieved by the large living room with its dining area, the efficient kitchen and snack space, as well as the three bedrooms, one of which is 11 x 14 feet.

Numerous other features command attention. An open porch at the side of the house, accessible from the living room, accentuates the appearance of size and spa-

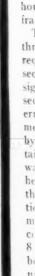
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LEFT: Typical sample of promotional literature and advertising being used to acquaint public with features of the house



ROY WINTERS, vice president, National Plan Service, displays first promotional piece for Certigrade National Home to V. E. Whittall, P. W. Bailey and H. W. Neuman, Stained Shingle and Shake Association, and W. W. Woodbridge of the Red Cedar Shingle Bureau

RED CEDAR SHINGLE BUREAU



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ciousness. The service entry is at ground level. The hood protecting the front entry, the large picture window, ample windows providing sunlight and ventilation, are all modern notes that add considerably to the comfort, convenience and appearance of this model home. Included is a natural fireplace at one end of the living room and a stationary picture window with two side windows which open.

The kitchen is on the efficient "U" plan for arrangement of cabinets, range and other facilities. Each bedroom has a large closet with sliding doors, and in the connecting hall are guest closets.

A disappearing stairway leads from the hall to the attic, where a large space is available for storage.

Conventional construction methods are employed in building the house, and wood sash and wood framing are specified and detailed.

The house has been laid out in three different designs, to meet the requirements of builders in various sections of the country. One design includes a full basement. A second design, intended for southern construction, is without basement and has a utility room 8 feet by 10 feet 6 inches in size to contain laundry equipment and hot water heater. A floor furnace or heater is located in the hall. The third design of the Certigrade National Home also is without basement and is executed for northern construction. It has a utility room 8 feet by 14 feet 2 inches to contain both laundry equipment and a furnace or heating unit.

A single-car garage is a feature of all three designs. In the base-

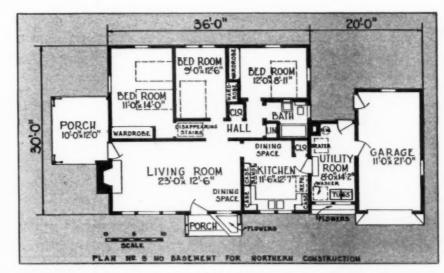


ment unit, the garage is connected to the house with an attractive breezeway. In the two basementless layouts, the utility room is placed between the house proper and the garage.

In describing the Certigrade National Home program, W. W. Woodbridge, secretary-manager of the Red Cedar Shingle Bureau, stated that its primary purpose is to stimulate public interest in quality construction, yet to maintain standards of economy in order to reach a substantial segment of the available market. He emphasized that the program features the retail lumber dealer, pointing out that blueprint plans are available to dealers from the National Plan

An effort will be made to interest a number of retail lumber dealers to take the initiative in their respective communities, and work with some of their builder customers to have a representative showing of the Certigrade National Homes ready for exhibit during National Home Week. The Week, which will feature thousands of homes on exhibit for public inspection, will open on September 11. Several dealers in Illinois already have expressed an interest in a tie-in of the home with National Home Week. The Red Cedar Shingle Bureau is urging builders to contact dealers, particularly in small towns, with the idea of cooperating in the production of model homes.

Complete literature and pointof-sale helps are available to dealers free of charge from the Red Cedar Shingle Bureau, 5510 White Building, Seattle, Wash.



EFFICIENCY of floor plan is demonstrated by full utilization of available floor space

Diamond Bar Homes



THE Diamond Bar brand, this Kansas home builder's family cattle brand for generations, is placed on each of the houses erected by his firm. Back of this trademark is a reputation for "building the best houses that can be built for the money"





THE DIAMOND BAR brand marks every Gardner-built home. To those who are familiar with the firm and with the brand, this signifies the highest quality in design, material and workmanship plus many other practical features which distinguish these houses from others in the same size and price range.

L. E. (Roy) Gardner and his son, James L. Gardner, operating as L. E. Gardner, Inc., in Wichita, Kans., adopted the Diamond Bar as their trademark when they started building operations several years ago. The brand is the same as that used by L. E. Gardner's father on his Kansas ranch years ago. Rather than spend his time running the ranch and riding horses all his life, Roy Gardner took what finances he had and decided to go into the business of building houses in Wichita to help relieve the pressure there for new homes. At the same time he decided this, however, he also decided he would make a thorough study of houses as they are being built and attempt to improve on design and technique. His son, James, studied architecture and now does the designing and serves as construction superintendent. His daughter, Irene, studied interior decorating and handles this kind of work for the firm. Together, they have developed a number of ideas now being incorporated in the firm's houses

ABOVE left is standard large bedroom which may be used as one room or converted to two separate rooms, each with adequate wardrobe storage area, by simply closing the Modernfold door. Below is typical living room arrangement

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Branded for Better Living

The houses planned and erected by this builder are trademarked by him. Back of his Diamond Bar brand is a well-established reputation for quality, dependability and individuality



CLOSE-UP of brand, easily seen from street, placed on front of the houses

that demonstrate how additional livability and economy can be obtained by using today's equipment, materials and building techniques.

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There are no swinging doors inside Diamond Bar houses. The Gardners soon discovered that the average swinging door requires a total of ten square feet and with 15 doors in the average house that meant a total of 150 square feet which could be added to livable area by installing sliding doors. In describing this to home buyers, it is pointed out that at \$10 a square foot this gives the house an immediate increased value of \$1,500 in additional usable floor area. The sliding door installations include all kitchen and storage cabinets

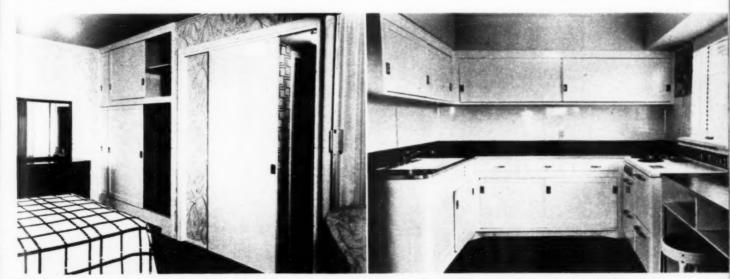
Although the houses are all of conventional framing with various exterior finishes including brick and stone veneer, the cardinal rule in design is to "build to eliminate future troubles, high maintenance costs, and to insure long life". Sturdy construction and wellplanned convenience are not just figures of speech with the Gardners. When houses are built on slabs, and this is a popular type of construction with the firm, the 10x20-inch footings are placed 30 inches below grade. A heavy gravel fill is covered with a moisture seal; insulating material is placed around the inside perimeter of the foundation and then a heavy reinforced slab is poured. Heat ducts are built into the slabs.

All-metal window casements, sash and sills are installed and used as selling points. On the south and west windows Solex heat-absorbing glass is used and Twindow insulating windows are used on the

north exposures. Venetian blinds are standard equipment on all windows.

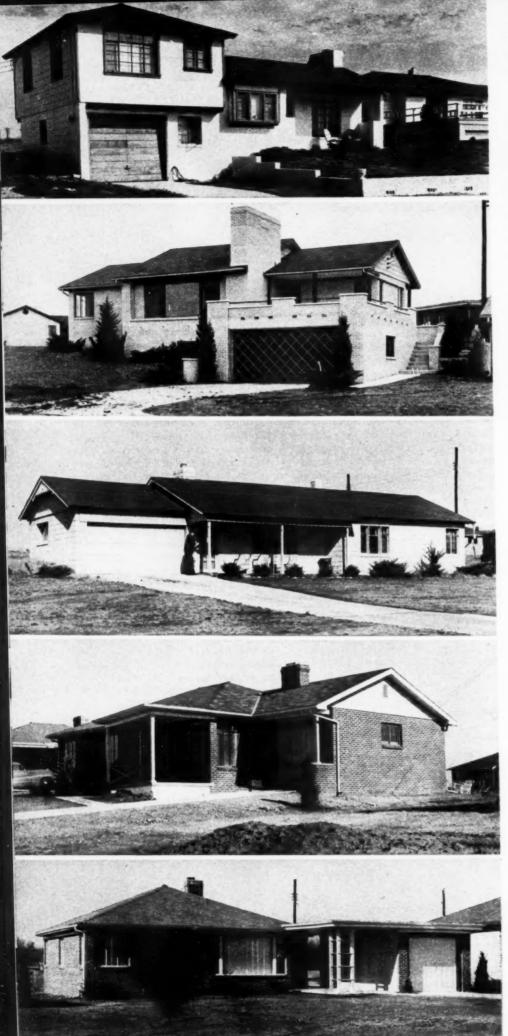
Another basic rule adhered to in planning these houses is to insure that every hall is designed so that no occupant of the house ever has to cross a room to get to another. No room is ever used as a hallway or passageway.

Most of the houses are designed so the occupants will have either two or three bedrooms. The creation of the extra bedroom is made very simple by closing a Modernfold door which is standard equipment in one bedroom of every house. The bedroom equipped with the folding door is unusually large and has two large wardrobe closets placed so that when the folding door is closed, one closet is in each of the two rooms thus created. The additional room may also be set up



THERE are no swinging doors inside these houses. In addition to regular room openings, all doors on wardrobe and storage

closets as well as kitchen cabinets, are of the sliding type. Cabinets are fabricated in builder's own woodworking plant



as a den or study, depending on the requirements of the home purchaser.

To arrive at a basis for figuring room sizes and also the number and type of rooms to put in their houses, the Gardners made a study of family living habits. They discovered that basements, as a rule, are not used enough to justify their construction. Because so many families spend so much time eating in the kitchen, there is a snack bar in every Diamond Bar house kitchen. This is in addition to a small but adequate dining area adjacent to the living room.

Because of the popularity of fireplaces in that section of the country, every Gardner-built house has a large, well-built and attractively finished air-circulating fireplace. The survey also disclosed that women like to change the decorating in kitchens and utility rooms oftener than they do in the balance of the house. To make this easy for purchasers of Gardner-built houses, a Tylac wainscoting is built from the floor to within one wallpaper roll width of the bottom of the soffit. Thus, with one roll of trimmed wallpaper, the average housewife can have an entire change in wall motif in a jiffy. All kitchen plumbing is installed ready for attachment of food waste disposers.

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The lack of adequate storage space in bathroom cabinets was noted by the Gardners. To supply this need, each bathroom lavatory has a specially-built cabinet under it, enclosing an area usually put to no good use in the average bathroom. In addition a lavatory-height small cabinet with linoleum top is built in next to the lavatory.

A careful study of storage space requirements for various rooms, especially bedrooms, permitted the Gardners to come up with the formula that each bedroom should have enough cubic footage of storage area to store everything in the room. As a result all wardrobe closets are large and at least 30 inches deep.

Heat in most of the houses is supplied by Janitrol forced warm air gas-fired 90,000 B.T.U. units. All the ducts and the furnaces

THESE HOUSES in Wichita, Kans., on lots 60 to 110 feet in width and of varying depths, are priced from \$13,000 to \$15,000. Although a standard floor layout is used, each house is individually oriented for the lot on which it is situated. The terrain in Gardner's beautiful Yale Heights subdivision is rolling hills, with the streets laid out in easy, graceful curves

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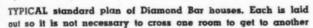
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LARGE windows are a feature of these houses. Solex glass is used in south and west windows and Twindows on north

themselves are installed so the system can be used for cooling in summer. Furnaces are raised six inches above the floor so that a refrigerating coil can be installed in the fan compartment. Gardner has worked out a system using a Freon gas coil and a three-ton compressor to satisfactorily cool the houses in hot weather.

Only the best quality plumbing is used and all piping is copper. All water pipes are installed on inside walls to guard against possible freezing in the extreme low winter temperatures reached in Wichita.

Interior walls are finished with gypsum board. In taping and sealing these seams, Gardner discovered that the lime which dropped to concrete slabs during the process was extremely difficult to remove after it had dried. To counteract this difficulty, he now sprinkles a thin layer of sand over each floor slab before finishers come in to seal the dry wall joints. As a result, it is a simple matter to sweep up after they are through, leaving the slab clean and smooth. When a house is located on a hill-side, the Gardners build basements, but only where there is an outside exposure on at least one full side.

No houses are regularly shown to prospective purchasers until they are completed. When they are shown, the interior decorator, Irene Gardner, hangs some sample drapes on several of the windows, puts up a few pictures and has a rug or carpeting laid on the living room floor so the houses will present a more attractive appearance and suggest ideas for decoration to the prospects. All landscaping is done on each house by the Gardners, but lawns are neither seeded nor sodded.

The Gardners operate their own woodworking shop where millwork and cabinets for the Diamond Bar houses are fabricated. All kitchen cabinet and utility room cabinet doors are of the sliding type. Throughout these houses, especially in kitchens and utility rooms, corners are rounded to make cleaning easy and to avoid scuffing.



BATHROOM lavatory has cabinet built around it to provide additional storage



TYPICAL foundation of a Diamond Bar home. Moisture barrier has been laid over which steel reinforcing has been placed ready for concrete floor slab to be poured

A House A Week To Sell

For Less Than \$9,000



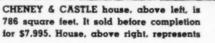


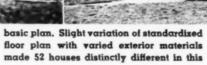












Spokane, Wash., development. Upstairs area in each story and a half house below is unfinished. Sales price, about \$7.950

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These builders show how to plan, build and sell homes to lower income groups by site prefabrication and materials handling methods



STREET of Cheney & Castle homes demonstrates variations achieved with a single floor plan that permits site prefabrication

FFICIENT PLANNING and sound merchandising techniques enabled the firm of Cheney & Castle, Spokane, Wash., to build and sell a house a week in the \$7,200 to \$8,450 price range during 1948. Sales effort and costs were held to a minimum but purchasers were consistent in signing obligations for purchase before houses were completed. The 52 houses, on 52x124-foot lots, met all FHA and VA construction requirements.

Some of the things that attract clients to homes of this firm are explained in this statement by George A. Castle, secretary. "We feel that the customer should be delivered a finished product, with all street improvements in and paid for and all exterior yard work completed, so that he is not put to additional expense."

Before one of the firm's houses is delivered to the customer, it is completely cleaned, including the bathtub, windows, and all equipment. Floors are waxed and made ready to move onto with no additional effort required on the part of the buyer.

How Cheney & Castle achieve soundly constructed, appealing houses to sell for these prices can be explained in their methods of construction and materials handling.

On-site prefabrication is the great time and money saving phase of their operation. But behind this is skillful planning that permits prefabrication, and at the same time, adequate variation in finished homes. This firm uses a standardized floor plan, yet six completely different floor plans are achieved through slight variations of the basic floor. By applying six different exteriors, varied window styles and landscaping, each of the houses in the 52-house project is different.

Site prefabrication in the Cheney & Castle operations begins with the construction of concrete forms. Since floor plans are standardized, new forms do not have to be made for each house. All new lumber is used in constructing the forms. The lumber is run through a cutting yard without danger to the operator of the saw of particles of concrete being on the boards, which would be the case if used forms had to be changed for each house. Each form is used for about 40 pourings.

Lumber for a complete house is pre-cut in the firm's cutting yard, rather than at the site of the house. Door and window bucks are nailed together at the cutting yard. Lumber is delivered directly to the saw line, and after it is cut it is piled on trucks for delivery to the house to be framed. Lumber that is to be used first is cut last, so that in loading the trucks lumber that will be needed first will be on top of the load.

"We have found that by pre-cutting our lumber, handling it as little as possible, and pouring concrete directly from trucks, a considerable savings in labor is possible," Castle explains. "Then, too, by standardizing our floor plans, our crews are literally able to frame a house in their sleep, rather than trying to figure out a

blueprint each time they attack a new house."

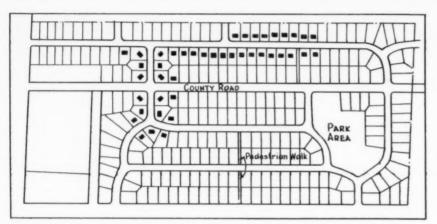


FLOOR PLAN above is basic plan from which variations were made. Other plans show how varied interiors were achieved





THOUGH these houses were made from the same basic floor plan, varied exterior materials and landscaping add individualism



CHENEY & CASTLE'S 1949 project will be in 100-acre plat adjoining Spokane

The builders pour foundations directly from a transit pre-mix truck, and thus avoid considerable loss of time and unnecessary expense.

The firm's basic house is 768 square feet. Basementless, it sells for \$7,200. This price includes the 50x124 foot lot. Curbs and sidewalks are provided, as well as graded and graveled streets. Heat is provided by an automatic oil fired floor furnace and a supplemental electric built-in wall heater in the bathroom and kitchen. A deluxe Bendix washer and a 40-gallon au-

tomatic water heater are standard equipment.

Dining area in the basic house is provided in the kitchen. By moving the wall between the living room and the kitchen back five feet so that it becomes a continuation of the utility room wall, an L-shaped dinette is provided in the living room. This variation involves no additional amount of materials, except hardwood flooring instead of linoleum.

"Variation 200" of this basic house design contains the same equipment and sells for \$7,950. This is a story and a half house with plastered finish stairway to the unfinished upstairs area. The wall separating the living room and kitchen may be moved back so that it will continue with the stairway wall and thus create a dining nook in the living room.

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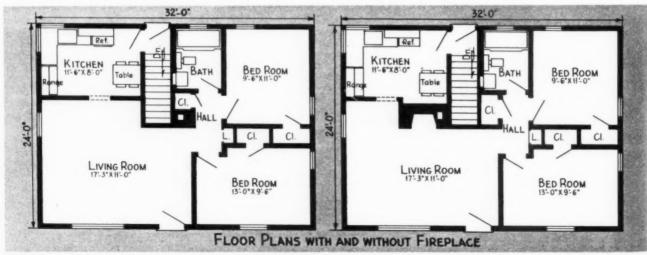
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"Variation B" is a full basement house, maintaining the same basic floor plan. The house is constructed with a bearing wall partition so that it is easy for the owner-occupant to add a third bedroom in the basement with two windows for cross ventilation, or convert the remaining free area in the basement into a recreation room. The house is heated with a forced air hand fired coal furnace. Extra equipment in the basement is a fuel storage room, double compartment laundry trays and a 40gallon automatic hot water heater. This house sells for \$8,350, fully landscaped.

In Cheney & Castle's "1948 Model," a full basement is provided. The foundation, as in the basic house, is 32x24 feet. The front bedroom, however, extends 15 inches beyond the outer perimeter of the foundation, providing a bay effect, a larger house and a pleasing variation from the basic house. The stairway is changed from the



THESE plans will be used in some of the Cheney & Castle homes to be completed in 1949. Basic plan is retained, with variations



center of the house to the outside wall, creating an entirely different kitchen. Sales price of this house is \$8,450.

Kitchen and bathroom floors in the Cheney & Castle houses are linoleum. Floors in the remainder of the houses are 13/16-inch oak, No. 1 common. Gypsum lath and plaster are used in wall construction, and exterior wall finishes are cedar siding and cedar shakes. Roof construction is conventional rafter, and covering is No. 1 cedar shingles

R. O. W. wood windows are used, as well as windows with fixed sash and wood frame. Millwork and trim are of enameled pine. Interior doors are Fir, one panel, enameled. Side walls of the houses contain one-inch Kimsul blanket insulation, and ceilings are insulated with two inches of the same material.

After new owners of Cheney & Castle homes have been living in the house for a week or so, the firm sends around a superintendent to inspect the condition of the house. He explains the functions of various mechanical items in the house to the new owner, such as the Bendix washer, the air conditioning furnace, and the automatic hot water heater. He tests all lights, switches, outlets; checks all



LEFT TO RIGHT, Harding Ward, vice-president in charge of material procurement: Bert M. Cheney, president; George A. Castle, secretary of the Cheney & Castle firm

doors and windows. At this time, any item that is not in first-class order is repaired. When everything is in order, the buyer notifies the lending institution that the house is entirely satisfactory.

In general, Cheney & Castle have solved two major problems. One, the problem of how to achieve good low cost housing. This they solved with site prefabrication and materials handling techniques. But prefabrication in itself posed the second problem: how to avoid monotony in design, with a certain amount of standardization that must necessarily accompany prefabrication. This problem they solved by six cleverly designed exteriors, adequate variation in landscaping, and slight variation of a standardized floor. The amount of sales is a good indication of how well the Cheney & Castle houses provide adequate individualism.

Cheney & Castle built the 52 houses in 1948 for the North Spokane, Wash., Construction Co.

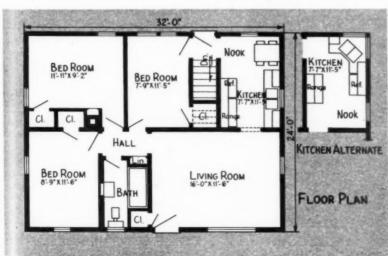
They were sold to veterans on 505 financing, FHA and G.I., with the FHA portion covered on a Title VI, 25-year loan. This kind of financing also attracted buyers. The homes, too, were well located in relation to a shopping district, transportation facilities, and schools. In speaking of the success of any project, Castle stated that first of all financing must be offered that can be handled by the average buyer in the low price field; and that the house should be well planned and well located in relation to transportation, stores, and schools.

The Cheney & Castle firm took full advantage of National Home week in 1948, and during that week more than 5,000 people visited their model home. The firm sold 22 houses during the week and 51 houses in the following four weeks.

The Cheney & Castle 1948 model home (see opposite page, top right), is from their basic one-story plan, built without a basement. Situated on a 50x124-foot lot, it was marked to sell for \$8,350. That price included a deluxe Bendix washer, two 40-gallon automatic water heaters, and a double-compartment laundry tray. On the exterior walls of this house, machine-grooved shakes were used. Gypsum board was used on the interiors. Ceiling insulation is three inches of mineral wool, and sidewalls are insulated with one inch of Kimsul.

The model home drew attention because of its neat, attractive design, and because of a good job of landscaping. Once inside the home, good construction with good materials offered a convincing sales argument.

This firm does not expect any difficulty in selling in 1949 if they can build homes to sell for \$7,500, as they plan on doing providing adequate financing is made available.



ANOTHER proposed plan for Cheney & Castle homes that will be used in 1949

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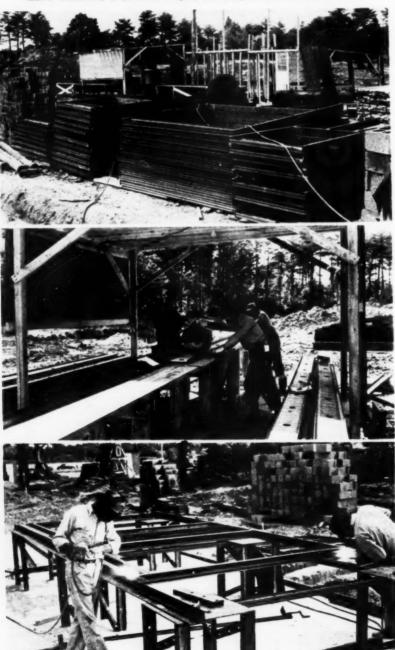
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KENT VILLAGE, a \$14,000,000 project, designed by Berla and Abel



COMPLETED WALL sections ready for site assembly are shown above. When necessary, power machine illustrated trims joists to length on site. Accurately sixed nailable steel study are welded into wall sections at project

STEEL FRAMING For Multiple Housing

Nailable material speeds up work on Kent Village project of 423 units

PANEL assemblies, with nailable steel framing members now available, may be partially prefabricated at the shop of the steel distributor. Shop prefabrication may then be supplemented by on-site cutting and final assembling. To assemble the nailable steel members on the site requires a power saw and portable welders.

This method of construction is being used in the \$14,000,000 multiple housing Kent Village project in Prince George County, Md., near Washington, D. C. The project includes 423 dwelling units.

In Kent Village, the framing members are welded. The nailable feature of the members makes it possible to apply other conventional materials to the studs, joists and rafters with eight-penny nails.

Insulating board sheathing is applied directly to the studs for the exterior wall, and brick veneer is used outside. Corrugated metal ties are used to bond the brick wall to the framing. Ties are nailed directly to studs also.

Other panels are welded on the site from standard length members. Lengths which are cut to fit at the factory, or which need minor trimming, are shipped direct to the site, placed on jig tables with the necessary sub-assemblies, and welded into panels which form a complete sidewall, partition or other section. As completed, the panels are raised into place and joined by welding.

After framing, concrete floor slabs are poured over fiber backed steel mesh which is nailed directly to the joists. Holes are precut in the steel members to accommodate pipe and conduit.

Dry-wall construction inside is possible without furring because of the nailable feature of the studs. Insulation can be applied in the same manner, with a vapor seal. The general contractor for the project is the Eugene B. Roberts Co. The nailable steel framing is supplied by United Clay Products Co. The A. J. Laut Co. shop fabricates the more intricate panels.

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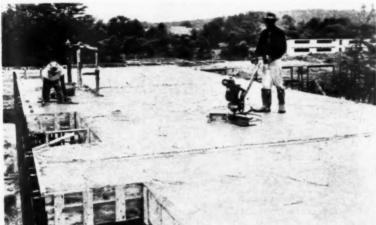
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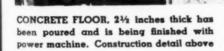
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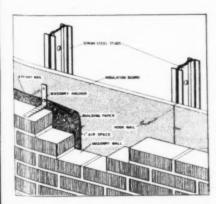


WHEN JOISTS are in place they are connected with steel bridging strips. Fiber backed steel mesh is nailed to steel joists as base for the concrete slab



BELOW, conventional material is nailed to this type of steel framing. Insulating sheathing is nailed to studs. Brick veneer is then applied





DETAILS show insulation installation with nailable steel studs. Masonry anchor is nailed to studs with eight-penny nail. Hook nails hold insulation securely in place



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LARGE earth-moving equipment of J. A. Thompson, excavating contractor, clears way for Steinkamp subdivisions

CUSTOM BUILT QUALITY

Achieved With Mass

A large volume of work permits development of specialized carpenter crews, more standardization of methods, and lower cost per unit for accounting, selling and supervision



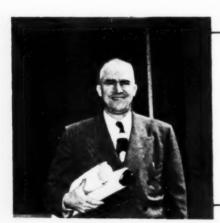
THE AIM of this builder is to provide the individuality, charm and quality of custom-built homes, while at the same time using mass production methods to reduce costs. This is a big order. At first thought it might seem that mass production could play only a small part in the building of homes so totally different from each other as those shown. But actually, many important economies are achieved.

To begin with, Elwain Steinkamp, the Bel-Air, Calif. builder, has an earth moving job large enough to warrant the use of heavy equipment. Hilly ground characterizes most of the 3,000-acre tract that comprises the Steinkamp subdivisions, and without heavy equipment it would be im-

possible to prepare the sites at a reasonable cost. Not only the rough grading but as much of the finish grading as possible is done while this equipment is on the job.

In Bel-Air, swankiest of all subdivisions in the Los Angeles area, Steinkamp is proceeding with the building of 25 large homes for sale, the lowest priced one being \$29,500 and the highest, \$59,000, including lots. He hopes to attain a volume of 20 new starts each month.

This large volume of work permits the development of specialized crews of carpenters, both on rough and finish work. Some do nothing but hang doors and windows; others do finer finish carpentry work on mantels and stairways. This of course in-



ELWAIN STEINKAMP

An Horatio Alger in the Building Field

Elwain Steinkamp, the largest builder of fine homes in Southern California, came up the building ladder from the bottom rung. He began as a plasterer; in 1923 became a plastering contractor. In 1932 he defied the depression by selling his plastering equipment and devoting his time to building large homes—specializing in seven-room houses with two boths. His insight into peoples' wants and his ability to fulfill them are partial answers to his success

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MOST finish grading is done before large equipment leaves site

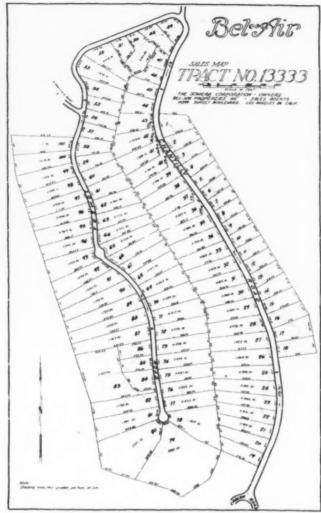


creases efficiency and cuts down need for supervision and

Steinkamp deals with all sub-contractors on the basis of volume work. The contractor knows that if he can move in a crew of men to work continuously on 15 to 25 jobs without any lost days in between jobs that he can figure more closely.

In addition to the above economies achieved, there are the natural economies which accrue to all large operations such as wholesale buying of some items, standardization of building methods, lower costs per unit for supervision, accounting and selling.

The houses are all designed by qualified architects. Most of the houses shown in the accompanying perspectives were designed by Earl C. Rahn, A.I.A. Hiram J. Hamer, A.I.A., and Frederick Hageman, A.I.A., are drawing plans for future houses. Also associated with Steinkamp is George V. Whisenand, A.I.A., who is also a civil engineer. Whisenand supervises the development of subdivisions as well as the construction of the houses.



PLOT of Bel-Air conforms to rugged terrain

Thus all jobs have the benefit of full architectural supervision by an experienced certified architect.

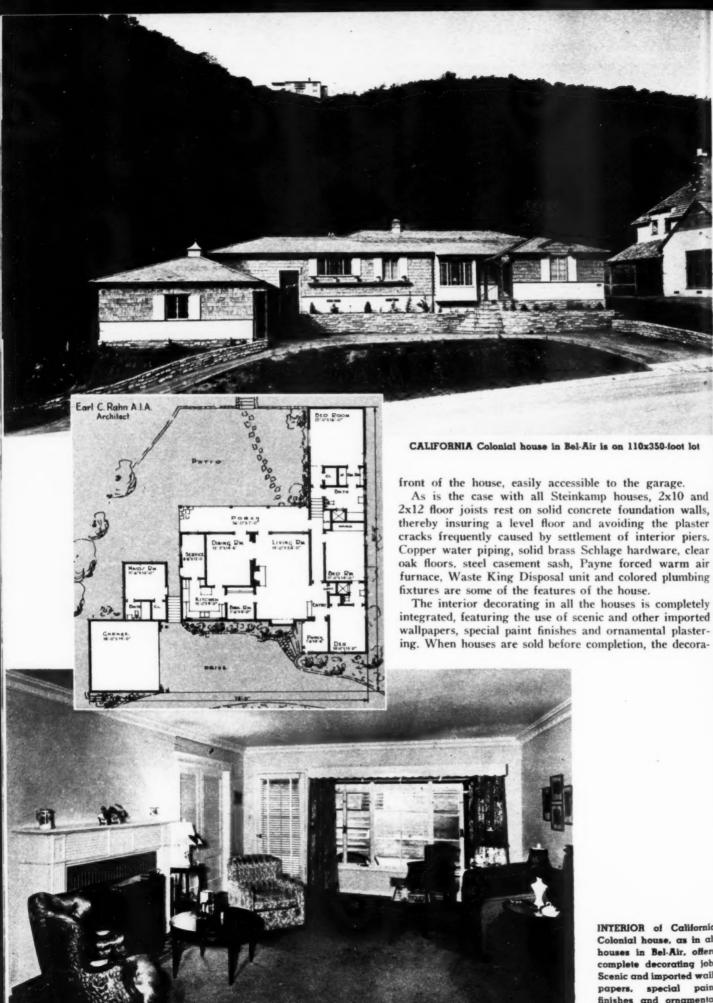
The California Colonial house shown was designed by Rahn. It features the extensive use of stone masonry, Arizona flagstone and redwood siding. The lot on which it is placed is 110x350 feet. The rear portion of the lot is considerably higher than the site of the house and patio, and is densely wooded with a pathway up the center. The price was about midway between the upper and lower figures for houses in the Bel-Air tract.

The house has about 2,200 square feet, including the maid's room in back of the garage. The master suite, consisting of large bedroom, dressing room and bath is six steps up from the hallway. The second bath is accessible from the den and smaller bedroom. The kitchen is at the





AS IN ALL Steinkamp houses, these in Bel-Air are designed to blend with terrain and appeal to select clientele



INTERIOR of California Colonial house, as in all houses in Bel-Air, offers complete decorating job. Scenic and imported wallpapers, special paint finishes and ornamental plastering are used

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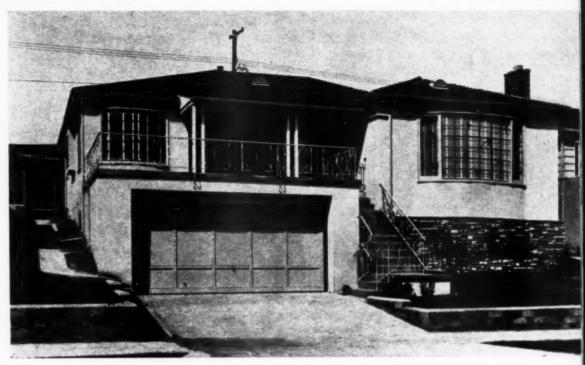
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THIS house was built by Steinkamp outside the Bel-Air settlement. Here an interesting combination of wrought iron and Arizona flagstone was achieved

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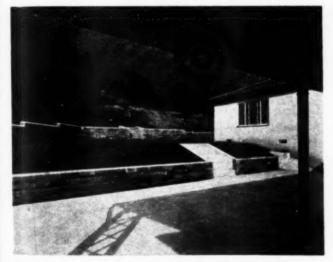
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PATIO in rear of spacious California colonial house in Bel-Air development is situated to take advantage of scenic outdoor living

tor works with the buyer and decorates to his specifications. Landscaping, including lawns, shrubs and sprinkling systems are included.

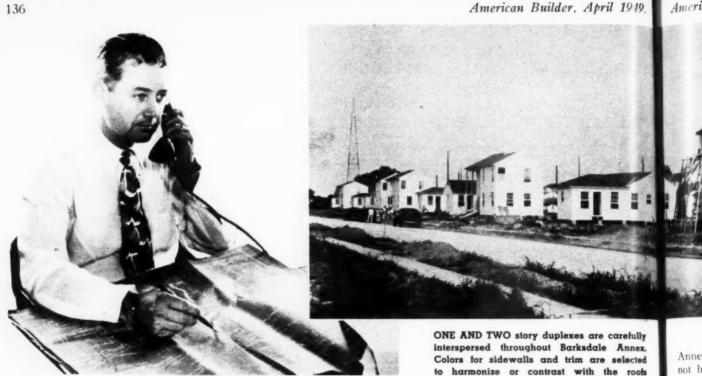
Steinkamp heads several other developments in the Southern California area where he is the largest builder of fine homes. His sales organization is decentralized—that is there is a separate organization for each tract, the head of which reports to Steinkamp. In Bel-Air Steinkamp recently joined forces with the only other company building homes for sale on an extensive basis there, and formed Bel-Air Properties, Inc. Members of this organization act as sales agents for both home building companies. The sales force consists of ten salesmen and a sales manager. They get their leads by advertising in the local papers and from people who drop in at the Bel-Air Properties offices.

Bel-Air is one of the show places in Southern California. Magnificent estates, the famed Bel-Air golf course and the Bel-Air hotel are visited by thousands of people annually, some of whom decide to come back and live there. Years of experience have taught Elwain Steinkamp how to suitably adapt a house to its environment so that it will have maximum appeal to prospective clients.



PART BASEMENT PLAN

DETAILS and floor plan of house above. No excavation was required for garage, situated to take advantage of uneven terrain



C. G. GIBSON, Shreveport, La., heads 75 duplex apartment project

Achieving Privacy In Low Rental Units Requires Careful Planning

BARKSDALE FIELD is a permanent army air base on the outskirts of Shreveport, La. Barksdale Annex is the name of a new housing development adjacent to the field. Here, on a 23-acre site, C. G. Gibson, a builder in Shreveport for the past 15 years, has erected 75 duplex apartments (150 residential units), primarily intended for rental to personnel stationed at the base.

The houses were built under the provisions of FHA-603. They are the first rental units to be built in or near Shreveport since before the war.

Of the 75 duplexes, 50 are onestory in height, and 25 are two-story. The one-and-two-story units are carefully interspersed throughout the development. Construction costs, including the land, range from \$14,000 to \$16,000 per duplex, and the rents, varying from \$65.00 to \$80.00 per month, will amortize the investment in ten years.

Each one-story duplex consists of two apartments, one with two bedrooms, and the other with one bedroom. Otherwise, the units are identical, and include a living room, dining room, kitchen, and bath, plus a garage. Each unit in the two-story duplex includes a living room, dining room, and kitchen on the first floor, with two bedrooms and bath on the second floor. As shown in the plan, the one-story duplex can be converted into one apartment simply by knocking out the partition wall between the bedroom and the hall closet.

"A great deal of time and effort went into the planning of Barksdale



THIS one-story duplex in Barksdale Annex can easily be converted to single unit



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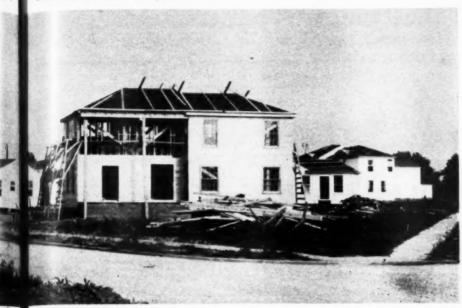
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KEEPING two families living under one roof as far apart as possible is the essence of Gibson's plan for privacy

Annex," Mr. Gibson stated. "I could not be satisfied to merely build economical shelter, even though the demand for hones is so great that people will rent anything. After all, I expect to own these homes for a great many years, and it was vital to plan a community in which people would like to live permanently, and not something they would rent simply because they were desperate for shelter.

"In the apartments, we have tried to give our tenants as much privacy as possible," Mr. Gibson continued. "I think you will find, if you study the plans, that we are doing our best to keep two families living under one roof, as far apart as possible. People's living, eating, and sleeping habits are pretty much the same, at least as far as hours are concerned, so while economical planning was essential to keep costs down and to assure reasonable rentals, we have not placed kitchens, living rooms, and bedrooms back-to-back. People want privacy in their domestic lives and we are giving it to them to the limit of our ability."

The same careful planning went into the selection of materials and into the construction. Just as sound community and architectural planning was vital, so was construction which would assure low maintenance cost. As is customary in the south, foundations are concrete beams under brick piers, protected by termite shields. Modular construction permits use of standard lengths of lumber. Exterior walls are clapboard and interior walls are cement plaster over rock lath. Steel trim is used around windows and doors. Window frames and screening are aluminum.

Double partition walls between apartments with a two inch dead air space effectively limit sound transmis-

sion. Where bathrooms are back-toback, the partition is filled with rock wool. Select oak flooring is used throughout except in the kitchen which is asphalt tile, and in the bathroom, which is ceramic tile.

Particular attention was paid to roof construction due to the climatic extremes in the south. Roofs, Mr. Gibson points out, are a source of high maintenance and give trouble if they are not properly applied. "Here, in Louisiana, a roof alternately is subjected to hot suns and heavy rains, frequently several times in the same day, and we are always faced with high humidity and often with high winds. Roofs have to be built to take it, so we use nothing but No. 1 grade shiplap in the deck, and lay no more decking in one day than can be protected with saturated felt that day.

"We use asphalt shingles because of their long life, ease and economy of application, and the many colors in which they are available.

"As a matter of fact, we begin the color planning of our homes and the development with the roof. We give the job of color selection to our dealer and the manufacturer. Then we decide on the colors in the sidewalls and the trim. Variation in colors of shingles adds a great deal to the appearance of the development as a whole, and helps materially in individualizing each house.

"We have made every effort to build with quality materials and equipment. For example, heating is provided by a Coleman gas-fired floor furnace, with Minneapolis-Honeywell controls. A Dixie-aire attic fan in each apartment provides adequate ventilation. Our kitchens are completely equipped with a Magic Chef range and a General Electric refrigerator. We provide plenty of kitchen cabinets, which we fabricate ourselves."

Perhaps the best testimony to Mr. Gibson is registered in this fact—homes were occupied as fast as they were completed and the number of applicants for apartments is many times the number of homes available.



THE 23-acre site development is adjacent to permanent Army air base



"Give people what they want and they will buy" is the theory of this builder who employs no publicity or sales promotion. He sells as fast as he builds



Building Homes That Sell Themselves

A BUILDING contractor since he was 19, Oluf Heggen, Seattle home builder, has succeeded by giving people what they want in a house.

And in fast-expanding Seattle, the gateway for air and water traffic to Alaska and the Orient, Heggen feels that his theory will continue to bring him business for many years to come.

"My houses sell themselves so I have no publicity or sales promtion crew," he said. "However, I don't object to any real estate man bringing me a buyer.

"Houses sell themselves if they have what people want. They should have a central entry hall, making it easy to get anywhere in the house without going through the living room and dining room. Rooms should not be too small. A large living room is best with an offset dining room. I

EXTERIOR Kenneth Heggen house is of Roman brick veneer. Interior spaciousness is created by dividing living and dining areas with a halfpartition of glass block

LOW LINES of this home give it the appearance of a ranch type dwelling. Steep ground slope permits two bedrooms and a recreation room in the lower level, all accessible to the patio



Team Univers Seattle

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Those is service. The quality houses

The equipment of hard kitchen In the ments I dry roo instance are two ments are the two ments are the two ments are two ments are two ments are the two ments are the two ments are two ments are two ments are the two ments are two ments are the two ments ar

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equipr ers. e units. kitche Wh take f avoid dining rooms walled in, but rather like them to add space to the living room."

Teamed with his three sons, who are graduates of the University of Washington, Heggen has been building in Seattle since 1924. One son, Kenneth, is outside foreman; the others, Vernon and Ed, handle the paper work.

Heggen's houses range in price from \$8,800 to \$40,000. Those in the upper price level offer more floor space and service equipment than those in the moderate price bracket. The quality of workmanship and of materials in all Heggen houses is constant.

The low-cost homes are basementless; their heating equipment is housed in a small utility room. All floors are of hardwood. Tile is used generously in the bathrooms and kitchens. Windows are ample in area.

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In the homes that sell from \$15,000 to \$40,000, the basements have recreation rooms finished in knotty pine; laundry rooms with trays, hot water heaters, and, in some instances, washing machines. In the top price homes, there are two finished bedrooms and a bathroom in the basements and fireplaces in the recreation rooms. A combination air conditioner and oil furnace is provided in some of the homes while others are equipped with radiant type heating.

Average building time per unit is three to four months. Time is saved by constructing the walls flat on the ground, and then raising them into position without the need of expensive scaffolding. Rough and finished work is handled by separate crews.

In the Heggen \$20,000 home, bedrooms are situated in a wing which can be isolated from the general living area by a Modernfold door. The master bedroom in the front of the house has a recessed vanity unit in one corner and a wardrobe closet with sliding doors in one wall.

A similar closet is provided in the other bedroom which normally serves as a nursery. Both bedrooms are fitted with steel casement sash, except a side window in the nursery. Here glass block is used to provide a quiet atmosphere for children.

Kitchens of the houses in the upper price range are planned carefully, and offer a complement of convenient equipment. Counter tops are of clay tile in matching colors and cabinets are steel with chrome hardware. Standard equipment in these kitchens includes automatic dishwashers, electric ranges, refrigerators and garbage disposing units. Breakfast nooks are combined with most of these kitchens, some baying circular tables and cushioned seats.

When possible, the spacious living rooms are situated to take full advantage of the scenic location. The living area



KITCHEN in Heggen upper-price home has latest equipment

in the Kenneth Heggen home serves to illustrate this orientation.

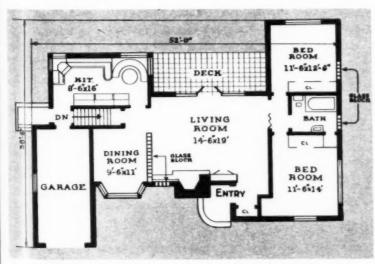
The front entrance flanks a spacious fireplace, and is directly opposite a bank of casement windows equipped with glass doors leading to a tiled roof deck.

Exterior of the house illustrated here is Roman brick veneer. Heggen occasionally uses hollow tile over frame studding. Landscaping is included in the purchase price of houses in the upper price range.

of houses in the upper price range.
"I don't use a master plan," the builder said. "My houses are custom built to suit the public, and I guess they do because the homes have been selling as fast as they are finished."

Aware that good location helps sell houses, Heggen selects construction sites that take advantage of the area's famous scenery and are convenient to shopping centers and transportation. Another selling factor is choosing a site, especially for homes in the higher price levels, in a residential neighborhood where property values are steady and not likely to decline.

And Heggen advises that time and free building service to persons just looking pays dividends for any builder. Through the years this attention to "window shoppers" has contributed to eventual sales and contracts, he reports.



THIS street level floor arrangement is typical of Heggen homes

MATERIALS AND EQUIPMENT USED

Zonolite insulation
U. S. Gypsum Rocklath
Insulux glass block
Curtis millwork
Schlage hardware
Crane bathroom fixtures
St. Charles metal kitchen cabinets
Westinghouse refrigerator
Westinghouse electric range
GE dishwasher and Disposall
Bendix washer, drier and ironer
Katzenbach & Warren wallpaper
Modernfold door



OPEN FENESTRATION, with spotlights accenting displays, permits client to view entire interior of this floor from outside



A HOMELIKE atmosphere prevails in the Nat Greene dress shop in Detroit, Mich. Here, a client may relax and enjoy shopping, and find restful privacy. This client-inducing atmosphere is achieved through skillful planning on the part of Detroit Architect Louis G. Redstone, A.I.A., and the careful selection and application of materials.

No confusion of merchandise lines the counters in this modern shop; instead, merchandise is stocked in convenient compartments behind the counters. Neither are there any glaring lights to distract customers. Inside lighting is a combination of recessed fluorescent and adjustable recessed spotlights, with the line of the spotlights directed effectively along the edge of the display counters.

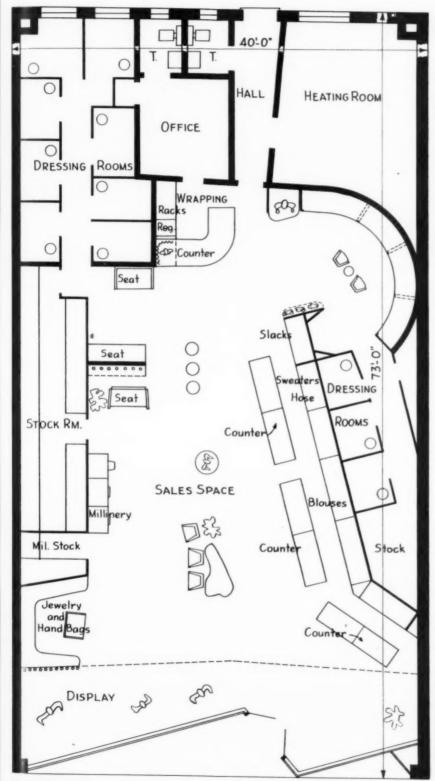
Exterior finish is of Macotta facing. Doors are of Herculite glass and the front of Pittsburgh Plate Glass material. Corrugated material around the display niche is of Kawneer aluminum sections. The interior wall finish is partly plaster and partly wallpaper, in colors which blend harmoniously with the carpeted floors. Decorative touches and lighting treatment accent the rear of the store. Throughout materials used aid design.

UPPER half of interior walls are plaster, while lower half is paper carefully selected to blend with the character of the store

DRE

Materials Aid Design

Spaciousness . . . restfulness . . . privacy. These qualities achieved through modern store planning pay dividends to proprietors



DRESSING rooms are amply large to provide comfort, and are planned for privacy



ABSENCE of suspended light fixtures from ceiling and elimination of old-fashioned display counters permits more simplicity in interior design. Color, here, is important. Ceiling is dark gray. Walls above recessed fluorescent lighting fixtures are chartreuse. Store fixtures also are gray

ADJUSTABLE recessed spotlights emphasize modern display counters and display niche. Continuous light trough around interior of store accents simplicity of design of wall and ceiling above the trough in contrast to the complex design below



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Skillful Planning

THIRTY years ago, Ojai Avenue of Ojai Calif. was famous for its shopping center arcade. A show place of Southern California, it was the mecca of all local trade. Times changed when Ventura, fifteen miles away, began attracting buyers with newer, larger and better equipped stores. Its shops offered a better display of merchandise, more variety, and lower prices.

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In Ojai, the Hickey Brothers management, which operated a clothing store and a hardware store on Ojai Avenue, decided the answer to Ventura's challenge was modernization of their stores and expansion of their facilities. The owners of Van's market, located between the Hickey clothing and hardware stores, agreed with them. Van's had long realized that to compete with the supermarkets in Ventura, they would have to convert to modern self-service equipment and provide parking space.

To accomplish this expansion was a problem. without leaving the arcade.

All three businesses had grown up in the arcade, and the arcade was the main shopping center in town. Since moving an old established store frequently wrecks its business, this factor seemed to preclude moving to another location. Finally, with the aid of Austin Pierpont, architect of Ojai, a solution was worked out which provided room for expansion STORE The idea was to cut a passage-way or arcade CLOTHING STORE from Ojai Avenue through to the next street ARCADE

DELIVERY SERVICE

CENTRALLY located arcade in Ojai, Cal., is again a mecca for local trade since its recent modernization

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Regains Local Trade

Buyer traffic detoured Ojai, Calif., when a nearby town modernized its stores. Now the buyers are coming back—for a good reason

and to have attractive shops in this secondary arcade. The frontage occupied by the three stores was 125 feet. The plan was to take out the market, which was 24 feet wide, and to use part of this space for the passageway and part for the expansion of the other two stores. The passageway would extend from Ojai Avenue to Matilija Street, and a new greatly enlarged market would be built there.

The plan was not without its hazards to Van's because their new market would be a block from their present store, on a street devoid of retail businesses. Furthermore the project would be costly and all concerned would have to count on a greatly increased volume of business to make it worth while. The success of the plan depended entirely upon diverting consumer traffic from Ojai Avenue into the new arcade.

The planners shrewdly decided that the best way to divert this traffic would be to provide the finest and most attractive stores in town in and off this arcade; and to design them with show windows which would be filled with the kind of merchandise that attracts customers.

The first step was to build the new market, which had to be completed before the old one could be torn down to make way for the arcade. Located on Matilija Street, it now has two great advantages over the former store, aside from its appearance. First, its area is three times as large, affording plenty of room for modern merchandising equipment and display; and second, there is adequate room for parking. Although it has the volume of business in the new store is running almost three times that of the old store.

After the market was completed, work was begun on tearing down the old market, creating the passageway and enlarging and modernizing the stores on both sides of it. Wide panes of heavy plate glass reaching to the ceiling were used in the store fronts facing the arcade. Mr. Haas, merchandise manager for Hickey Brothers' stores said, "People standing in the arcade can see practically every item in the hardware and appliance stores. This is a great asset because many people like to make their selections undisturbed by clerks hovering

By examining the architect's plot plan it can be seen that passageway from Ojai Avenue to Matilija Street

been in operation only a short time,

WIDE windows in arcade permit buyers to shop without interference from clerks.

is nine feet wide between the stores and 12 feet where the parking begins. The windows of the hardware extend back 106 feet on one side; on the other side are an attractive jewelry shop, an appliance store, and a children's wear shop. To the right, about midway in the arcade, is an attractive entrance to three offices and shops built over the rear portion of the market.

Trade is drawn into the arcade not only by its attractive frontage on Oiai Avenue, but because it is interesting and attractive all along its entire length from Ojai Avenue to Matilija Street. The greatly improved market, the second floor offices and shops, and the well decorated show windows on both sides all play their individual parts in attracting passersby.

Great credit for the success of the venture is due Austen Pierpont, the architect, and Martin Davidson, the general contractor who handled the construction work. Beauty and economy were important factors and both were achieved.

The new structures in the rear were built of concrete blocks and painted a pastel green. The canopy which extends ten feet in front and on the side of the market is painted a salmon color to blend with the walls. Planting spaces do much to enhance the attractiveness of the arcade.

Walls of the arcade are faced with roman brick. The floor is concrete with drains set in so it can be hosed. Lighting is by fluorescent tubes recessed in the ceiling and covered with frosted glass. Skylights provide natural light during the day; egg-crate frameworks set under the skylights hide their glass and give them an attractive appearance.

Summed up, the benefits which accrued to the merchants concerned with this modernization were first, the creation of a new shopping center; second, modernization and expansion of the three stores was accomplished.

Ojai Avenue has again become the mecca for local trade.



STRUCTURES in rear of arcade are of concrete block. Attractive canopy extends out 10 feet

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ASSEMBLED in the auditorium of Illinois' Davenport Hall, builders await opening of two-day Residental Construction school

Research Pays Off in New Techniques

Builders study and inspect results of housing experiments at University of Illinois and hear lectures on business phases of construction

ENTHUSIASM for the work being conducted by the University of Illinois as an aid to the building industry marked the Fourth Annual Short Course in Residential Construction for builders and contractors, presented by the Small Homes Council of the University at Urbana in February.

More than 160 builders and persons in related industries attended the two day meeting. A predominance of young men attested to an increasing interest on the part of progressive builders in the research work of the Council, which, although only in its fifth year, is coming to be recognized as filling a definite need of the industry.

Most of the discussion panels in

the comprehensive program were conducted by the staff of the Small Homes Council and members of the University faculty in contrast to previous programs when panels were comprised principally of outside speakers. All phases of home building—planning, construction methods, mechanical problems, record-keeping and advertising—were covered in detail.

The visiting group was welcomed at the first session by W. H. Scheick, professor of architecture and co-ordinator of the Small Homes Council. An address' by W. H. Kapple of the Council laboratory, research assistant professor of architecture, established the theme of the meeting—a challenge

to builders to make technical progress a necessary aid to the building industry in order to continue the record housing accomplishments of 1948

A feature of this year's educational program was a substantially increased use of movies and slides to illustrate lecture points. A study of a group of experimental homes showing the method of construction from foundation to roof and the discussion on ceiling-panel heating versus conventional warmair heating, based on data from another research house were of particular interest. J. T. Lendrum, associate Council co-ordinator, led the former and R. W. Roose, special research associate in mechan-



LINE of cars occupied by short course students, enroute from lecture hall to site of research projects

ical engineering, the latter. Both lectures were accompanied by slide films. Other movies included "Dry Wall Construction" by the U.S. Gypsum Company and "Plumbing Tests, Bureau of Standards."

Considerable discussion followed a talk on liberalized FHA minimum requirements by C. T. Morrisett, chief FHA architect, Springfield, and on record-keeping for the builder, by Edwin L. Theiss, University associate professor of accounting. Richard N. Jones, vice president in charge of sales of the Lustron Corp., Columbus, Ohio, spoke at a dinner meeting about the company's long-range plans in the field of engineered houses.

The Small Homes Council was organized to work on the premise that improvement in housing must depend upon the general advancement of knowledge in every type of problem. A unique organization in educational and research circles, the Council has compiled all information gatl.ered at the University through years of research in various aspects of home construction, equipment, and maintenance. At the same time that it is making this assembled information available to the public, it is also undertaking new research.

By concentrating on low-cost, single-family housing units and assembling in one place all facilities necessary for intensive research and education, the University hopes to make a valuable contribution to the national effort for better housing. The success of this effort is being demonstrated by the fact that other universities have adopted similar programs, with the national research movement gradually gaining greater impetus.

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The Small Homes Council is a pool of all the departments of the University whose work is related to housing—architecture, home economics, mechanical and electrical engineering, and economics. The Council acts as the co-ordinating agency for all of these departments.

William H. Scheick, professor of architecture, who directs the Council, has held the position of coordinator since its organization in 1944. The associate co-ordinator is James T. Lendrum, associate professor of engineering drawing. Maxine Kennedy, assistant professor, is editor; and William H. Kapple, assistant professor, is research architect.

More than 1,700,000 non-technical circulars on 22 subjects of home planning and building have been distributed by the Council.



AN UNCOMPLETED experimental house is visited on tour of campus



SMALL Homes Council office, where research plans are originated



GROUP inspects unfinished interior of another experimental house

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Giving Service

By adhering to this motto enterprising Mohawk Lumber Co. has successfully developed one of the largest and most efficient building material services in Michigan





FRANK P. GALLAGHER, General Manager

WHEN Harry Smith, president of Mohawk Lumber Co., Detroit, Mich. officiated at the opening of their new office building and fireproof warehouse, October 20, 1948, one of his most cherished ambitions was realized.

Five years before this time, the site contained an abandoned lumber yard and five acres of vacant land. Today, due to the energy and vision of Smith and key members of his organization, the site is occupied by the new office buildings, a complete lumber yard, a large mill, a number of warehouses and a parking area for 100 cars.

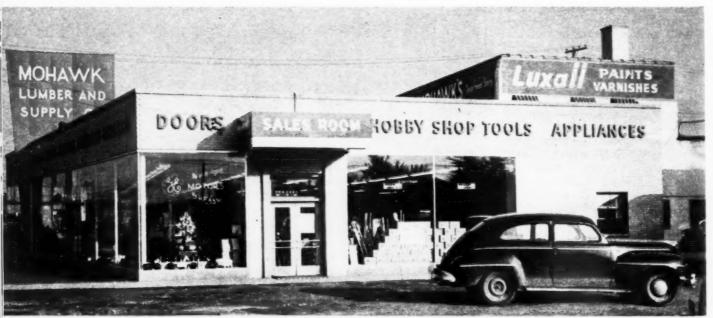
The tremendous growth attained in the last five years by this company, is due in part to the fact that all materials, tools and equipment used in the building of a house, can be obtained in one place.

This "one stop" idea has been re-

sponsible for a great acceleration in sales. Customers like the idea of being able to purchase all the things pertaining to the house in one place.

In the organization's newly established "House Clinic" division, which is headed by Guy Lancaster, a veteran building expert, this "one stop" idea has been carried out to its fullest extent. The Lancaster staff cooperate with customers on any subject relative to new construction, modernization or alteration of existing buildings. The functions of this staff include everything from the idea, to the supply of materials for the job—sketches, blueprints, specifications and estimating.

As an example—a customer comes in who wishes to renovate his house to bring it up to present day standards. A staff member takes notes of his requirements and obtains all pertinent information. A Mohawk repre-



PARKING lot side of new sales and office building. This structure is a good example of modern commercial design

Makes Friends and Sales

sentative then goes to the site where measurements and other data are gathered. This information is turned over to the plan department where drawings are prepared. An estimate is made and submitted by builders who are retained by Mohawk on a subcontract basis. Competitive bids are always obtained. This company has a group of builders available for this type work, thus assuring the owner fair dealing on the part of subcontractors.

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After the contract has been let and the work started, periodic inspection is carried on by the company's superintendent to insure the owners complete satisfaction. All materials required in the remodeling are obtained at Mohawk. In the event a loan is required to carry on the work, the necessary financing is arranged for the owner by Mohawk. All legal papers required in the awarding and completion of the work are handled by the staff. Thus from the time that the owner comes in to the lumber yard with his problem, up to the point where the house is turned over to him in a completely renovated state, all the work and materials required are supplied by the Mohawk Lumber Co. No extra charge is made for these services. They are all included in the "one stop" selling method. Many of the headaches incurred by owners when dealing with a number of individuals and firms are eliminated by this all inclusive service.

In this type of setup the Mohawk Lumber Co. is responsible to the client for the proper completion of all work, and any complaints that may arise are handled by the company.

Another factor that has had much to do with Mohawk's rapid expansion is the liberal attitude of the company toward publicity and promotional work. Smith recognizes the tremendous possibilities in a sustained and constantly accelerated program. This is evidenced by the fact that several years ago, the budget for advertising amounted to \$4,000. This has now been increased to the point where \$50,000 is being expended for promotional work this past year.

Mohawk serves the entire metropolitan area of Detroit, and within this range carries on an effective pro-



ENTRANCE to one of the large warehouses used for the storage of finished lumber, gypsum, insulation, plywood, wallboard, 200-car parking lot in foreground



A GLASS enclosed illuminated display unit located extreme corner of parking lot





TWO views in the large, light sales room indicating the division of departments. Top view shows a portion of the hardware display. Lower view is in paint department

gram of advertising which includes newspapers, street car and bus advertisements, window displays, signs, and billboards. This planned program is carried on through a recognized advertising agency.

Smith is a great believer in slogans to carry the message of progress. "We'll do the whole job,"-"Modernize the Mohawk way,"-"We sell everything except the wife and furniture." He is not above injecting a bit of humor if it will draw the attention of the public. All displays carry the slogans with a constantly changing application.

Smith has an organization which totals approximately 175 employees. Personnel include inside salesmen that confine their activities to the yard and outside men who keep in constant touch with all builders advising them as to the availability of the material in the yard and to its quality. Balance of employees are mechanics, yard men, clerks, and stenographers. The company employs a service man who is attached to the

> ARTIST birdseye view of the entire five acre tract as it now appears to the public



GUY LANCASTER heads new 'Home Clinic" division, Its function is to provide everything from the idea to the complete remodeled house

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"House Clinic" for the purpose of inspecting the construction work that is in progress. This man spends 75 per cent of his time in the field.

The company operates 34 rollerbed trucks for the delivery of material. These trucks carry a load free of charge within a 30 mile radius of the yard. This type of truck permits the delivery of twice the amount of material to the site in a day than would be possible otherwise. The safety factor for the load is much greater with less possibility for breakage. Ease of unloading is also considered.

Material for an entire house, including frames can be delivered in two loads. When trucks are loaded at the yard, material is arranged in proper sequence, so that when it is delivered to the site, the framing lumber will be on top of the other material in convenient order for the builder's use.

The welfare of the local builder is Mohawk's first consideration. A file of current plans are kept on hand for his use. A conference room is available for builders at any time for discussion purposes or for closing a contract. The "House Clinic" operated by Mohawk will not consider new construction other than in the preparation of plans when requested. Their



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LEFT: One of the enclosed lumber sheds in yard. Center: Partial view of large mill. Right: A Ross lumber-carrier for use in yard

construction work is confined entirely to remodeling and repair. The friendly relationship that prevails between the builders of this area and the lumber yard, is due to a complete understanding of their mutual problems.

The present five acre site occupied by the Mohawk Lumber and Supply Co., is a model of efficient planning. The recently completed sales, office and display building constructed from the plans by Giffels and Vallet, Inc., architects, Detroit, Mich., is a splendid example of modern commercial architecture. Extensive show windows on two sides of the sales room bathe this area in complete daylight. The use of the large display sign as an integral part of the exterior design is extremely effective.

Departments for the sale of paints, builders hardware, mechanic's tools, power equipment, small motors, oil burning equipment, garden tools, Coleman furnaces, aluminum sash, Anderson sash, plumbing fixtures and supplies, finished hardware, doors, and kitchen equipment are all arranged for effective display in the large sales room. The rear portion of the store contains offices and rest rooms. Additional offices are placed in the second floor portion of the sales building.

The cost of the sales building, including a fireproof warehouse which is directly to the rear amounted to \$250,000.

To celebrate the opening of the new sales and office building, 500 invitations, printed on full size cedar shingles, were sent out to suppliers, builders and friends. The party was such a success that it was then decided to make it an annual affair.

Officers of the company are, Harry Smith, president, Harry Jaffe, vice president, and Frank Gallagher, general manager. Josh P. Sarasohn handles promotion for the company.



STREET view of new sales building. Entrance to store is from the parking lot





MORTALITY rate was high in this old, half-monitor type hog house

SAVE THE PIGS

Hog houses on many farms are the same as Grandfather built when he homesteaded. These ancient structures need streamlining to lower an unnecessary death rate

ACCORDING to U.S. Department of Agriculture figures, 14 per cent more sows will farrow pigs this spring than a year ago—7 per cent above the 1937-46 average. But three out of every ten of these pigs will die, if past experience is any index; many of them because of poor housing.

On a large number of farms, the hog house is the one that Grandfather built when he homesteaded the farm. These ancient structures can be streamlined, however; and the accompanying pictures show what was done with a 35-year-old hog house in Hancock County, Iowa.

This old half-monitor hog house is typical of hundreds now in use that represent a good volume of business for the builder and lumber dealer. It was actually only a wooden shell, un-lined and un-insulated. The foundation and floor had crumbled badly, due to a weak mix of concrete. Portions of the side-walls had rotted or been damaged by the hogs. There was no ventilating system; no place to store bedding; no running water or electricity. In winter, the house was cold and damp, due in part to the open waste-space in the ceiling area. On cold days, an inch of frost would gather on the walls, and melt off and drip when the day warmed up, making the entire floor wet and sloppy. The house had to be cleaned out three times a week, and little pig mortality was high.

The transformation to the present streamlined structure was comparatively simple. The building was jacked up, and footings and foundation replaced. Windows in the top portion were removed, the roof was extended to form a gable, and re-shingled with cedar shingles. New posts were put in to support the roof. The drop siding was repaired where necessary, and a

vapor barrier was tacked to the inside studs. The lower portion of the interior was lined with lumber, where the hogs could damage the wall. The upper part and ceiling were lined with insulation board. Vermiculite insulating fill, 35% inches thick, was poured into the side-walls; and a 3 inch thickness was placed over the ceiling. The present ceiling is 7 feet 6 inches high, with a 5 foot high loft. A year's supply of bedding can now be stored in this space, which formerly was wasted.

The most badly disintegrated portions of the old concrete floor were knocked out. A vapor barrier was placed over it, and then a three inch slab of vermiculite insulating concrete. A two inch topping of ordinary concrete over the vermiculite concrete provides a wearing surface.

A mechanically-controlled ventilating system was installed. New pen partitions, running water, and electricity were added; and a coat of red paint with white trim on the exterior completed the transformation. HOG

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The list of materials used in the remodeling represents a nice volume of business for the lumber dealer:

12 squares of 5X wood shingles

4 gallons of paint

200 board feet of drop siding

10 9/12 4-light windows

10 9/12 4-light storm sash 144 bags of Portland cement

20 cubic yards of gravel

54 bags of vermiculite stabilized concrete aggregate

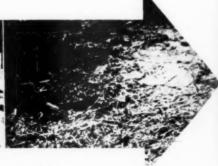
40 linear feet of ridge roll

1,400 square feet of 25/32 insulation sheathing board

480 board feet of 1 x 12

BECAUSE of an improper concrete mix, floor in old hog house began to disintegrate. The damp condition of bedding that developed during farrowing time is illustrated at right. This type of structure is not too unusual, and it is time to encourage farmers to remedy an unnecessary condition





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HOG house after remodeling. Bedding is now stored in loft space

2,000 square feet of vapor barrier paper

- 2 10 inch x 12 inch louvers
- 50 linear feet of 4×4
- 250 linear feet of 1 x 6
- 130 bags of vermiculite insulating fill
 - 1 thermostatically-controlled fan ventilating system
 - 2 automatic hog waterers nails

Feeding, breeding, management, and housing are the prime factors in efficient hog production; but housing today is on a much lower plane than the first three. With the building materials necessary for such a remodeling job now available, contractors and lumber dealers can be very influential in raising the standard of farm buildings in their communities.



HERE is the interior of the old hog house after remodeling. Note dry condition of floor, ventilating duct and adequate insulation



DEAD PIGS—result of improper housing—are graphically shown here. Small cost of remodeling pays dividends



REMODELING of old hog house shown here was very simple. Building was jacked up, footings and foundation replaced

Houses for Hothing!

by R. E. Saberson

We will have an oversupply of homes

almost before we know it—at the

current rate of production-yet our

Administration does not recognize this

MAGAZINES and newspapers still carry frequent accounts of the great housing shortage despite the fact that a nation-wide survey, conducted not long ago by the Wall Street Journal, pointed out, according to Life magazine, that "new houses are standing vacant in many cities, some of them still unsold after months of completion."

Significantly the same article, the report of Life's Round Table on Housing, has this to say about the much maligned industry:

"Considering all the difficult obstacles against which they have had to work, it may be conceded that the builders of the United States have done a good job in the last two years. They have built, that is to say, about 1,800,000 houses."

Then, too, this flattering tribute to the far flung housing industry from the same source is worth pondering:

". . . America has become a nation of home owners. Something like 53 per cent of the people who live in towns and 65 per cent of the people who live in the country own their own homes. And nonfarm ownership has increased in the U.S. by a fabulous seven million since 1941. No other nation can match these figures."

Accusation Refuted

Life's panel not only brought out some highly interesting and extremely encouraging facts but in our opinion refuted completely the oft-repeated accusation of uninformed critics that "nothing is being done about housing." Any one who studied the 13-page article could not help but realize that the industry can boast of great achievements. If such were not the case the United States would not surpass all other nations in home ownership.

By bringing together such residential construction experts as Fritz Burns, president, Kaiser Community Homes, Los Angeles; Philip Klutznick, president, American Community Builders, Inc., Chicago; William Levitt, president, Levitt and Sons, Inc., Manhasset, N.Y., nation's largest home builder; Alfred Gross of Gross-Morton Corporation, Jamaica, N.Y., Carl

G. Strandlund, president, Lustron Corporation, Columbus, Ohio; and Alfred Barten, president of Small Homes Development Corporation, Wilmington, Del., Life was able to present to its millions of readers an inspiring story of what actually is being done under exceedingly difficult circumstances, to produce more and better houses cheaper.

Such a presentation should end, once and for all, the erroneous impression that the housing industry has been weighed in the balance and found completely wanting, as so many of our bureaucratic friends would have us believe.

In addition to the big names included in the list of those who sat in on the Round Table there are many others, who have immediate and long range ideas for bringing the price of houses down . . . men in practically every metropolitan area who are working night and day, not only to improve the product, but to reduce its cost.

The Small Builder's Role

Then out and beyond these mass builders in the larger cities are the countless small operators who carry on throughout the length and breadth of the land. Mrs. Samuel I. Rosenman, former chairman, National Committee on Housing, called attention to the importance of this vast group when she said:

"The small builder starts with the advantage of low overhead—perhaps an office in his hat or in his front parlor with his wife taking the phone messages. Experience has shown that these little builders can usually undercut the cost of big builders. Since the vast majority of homes are built in small communities, which cannot absorb large building operations, the small builder is a strategic fellow to help in this drive to cut housing costs."

It need not be pointed out that such builders are constantly getting more and more help in the way of prefabricated housing parts and ready-to-use materials which extend to practically every part of the house. Great progress already has been made in this direction but the surface has hardly been scratched. Streamlined factories are turning out more, and larger, parts which can be assembled quickly on the building site with labor-saving machinery and equipment.

Then, as we were penning these lines, we picked up the Sunday supplement of our home town newspaper where we came across a lengthy, well illustrated article entitled "The Race to Build Houses."

It was an account of what is being done in New York, California, Pennsylvania, Illinois, Connecticut and other states to speed up, and improve, house construction. It told how Architect Carl Lans, formerly with FHA but now with NAHB, has an economy house committee going in every state. It was replete with well known names in the housing industry-Nick Molnar of Cleveland, economy-house chairman NAHB; Alex Bruscino, of the same city; Sharp of Houston; Gerholz of Flint; Boggs and L'Engle of Atlanta; Price Brothers, National Homes Corporation, Indiana.

It was a long article but it made no attempt to cover the water-front. It merely hit a few high spots in telling what is being done to get more and better houses cheaper and it included, of course, Levitt, Burns, and Strandlund. There was ample proof, it seemed to us, that plenty is being done about housing, and, that it is being done by the right people.

All of which convinces us, as we have often said before, that we will

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trati get to it alar side app have an ample supply of houses almost before we know it and that the great far flung industry is geared up to the point where it won't be able to stop when demand and supply are in balance. In houses, as in everything else, great shortages are always followed by oversupply. At least this has always been the case in the past and we know of no economic law that has been repealed which will change the situation in the future.

All of which was pretty much on our mind when we read in an association bulletin that "there are between fifty and sixty housing bills introduced in the House of Representatives and a like number in the Senate . . . that Administrator Foley is telling the world how many million houses we need in the next several years . . . that President Truman is repeatedly saying private industry cannot produce all the homes that are needed."

Obviously the present Administration is anxious and willing to get into the housing business up to its ears. This zeal is all the more alarming when one stops to consider that no one in Washington appears to be able to make an in-

telligent estimate concerning the number of residential units that are needed! It would appear that determining "how many" conceivably should be the first order of business.

People In Glass Houses . . .

Hearings on the subject reveal clearly that there are as many opinions as there are witnesses. The natural result is complete chaos . . . chaos built on top of chaos as revealed in the report of the Hoover Commission.

Just how the Government can expect to solve the housing problem when it is unable to operate its own business efficiently is a question that is of grave concern to the taxpayers of the nation. It has been proved by highly efficient concerns that the building of homes is an exceedingly complex operation. Such being the case, what may be expected in the way of "relief" from a Government bogged down with so many overlapping agencies that it costs more than \$11.00 to acquire a \$1.25 box of paper clips!

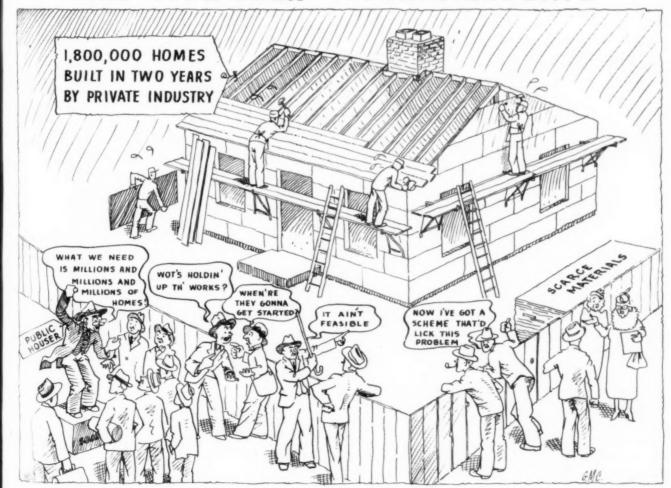
But the zeal to turn out millions of homes, regardless of how many may be needed, does not end with our bureaucratic do-gooders. Walter Reuther, president, CIO United Auto Workers, recently proposed that America's surplus aircraft plants be converted to the mass production of 20,000,000 homes and that the CIO was going to press for federal action to put it. over! It was Mr. Reuther's theory that a two-bedroom home could be produced for less than \$6,000.

Where would the money come from? Very simple, Watson. A purely elemental question. Borrow 13½ billion dollars from the social security reserve fund and pay it back in ten years. The Government would take care of the down payment through a loan.

And so it goes. As the great housing shortage becomes less acute the plans for its "solution" become more and more fantastic. Billions for this, billions for that; with little thought being given to where the dollars will come from.

In the meantime, competitive free enterprise will continue to build more and better homes, cheaper. The race to outdo the other fellow will become faster as the size of the market decreases.

THE SIDEWALK SUPERINTENDENTS



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Engineered House Construction



Part V NAILING

Many failures occur in structures because of poor nailing practices. In this additional article in the American Builder series on Engineered House Construction, a few hints are given on nailing technique

THE CORRECT nailing of wood and other materials that comprise a modern house is too frequently taken for granted. Anyone can drive nails, but to place them in the right places to obtain maximum efficiency, permanence and good appearance requires some study and training.

In framing any wood structure the strength of the building is dependent on how well the parts and

elements are nailed together. It is important to know the size of the nails to use, the number to use and where they should be placed to fortify the structure to withstand

the forces that the parts must resist to keep the whole rigid and

plumb.

The action of high winds and storms illustrate dramatically the importance of correct nailing for frame structures, especially houses. Many well-nailed and well-constructed wood buildings have survived for decades the severe weather cycles and the occasional storms of hurricane proportions that occur in many parts of the country. On the other hand, under severe storm conditions, houses with inadequate nailing often separate into parts or even into individual pieces of framing, few of which are actually broken. This demonstrates that the weakness was in the nailing rather than in the wood parts themselves. Surveys following storm damage areas show that houses standing intact and plumb amid broken trees and the wreckage of neighboring houses are invariably those which, in addition to other features of good construction, are adequately nailed.

There is considerable variation in nailing practices because of the difference in opinion as to what constitutes correct nailing on frame houses, even within limited areas.

The species of wood used in framing will require no change in nailing except at the more critical joints. In those places, if woods of comparatively low density such as Engelmann spruce, northern cedar. and cottonwood are used, an increase in the number or size of nails is necessary to compensate for their lower nail-holding power.

In most joints in house construction, one piece tends to slide on an adjacent one because of the loads or forces met. Resistance of nails to such forces is termed "lateral resistance". Nails through

Nailing is such a broad subject and embraces so many of the materials used in construction today that it is not feasible to attempt complete coverage of the subject in one issue. This is the first of several articles to be published in American Builder on correct nailing practices. trimmer joists into the ends of headers, nails through headers into the ends of tail beams, nails attaching ledger strips to girders, are subjected to such loads or forces. Lateral resistance of nails attaching wall sheathing or interior wall coverings of sheet materials to the frame comes into action in resisting forces that tend to rack the wall and in carrying the weights of such materials. Lateral resistance of nails also works against the horizontal thrust of rafters attached to ceiling joists or to plates.

The other manner in which nails are stressed or loaded, is in "direct pull" or withdrawal. Nails attaching covering materials to the lower edges of joists or rafters are stressed in direct pull by the weights of those materials. Similar stress is induced by warping, by vibration, and by wind suction. Ordinarily, when sufficient lateral resistance has been provided, ample resistance to direct pull will be present.

No matter how well a house is nailed, it is not adequately protected against storm, earthquake or flood unless it is firmly attached to the foundation. A commonly specified requirement is that sills be connected to the foundation by bolts not less than one-half inch in diameter, spaced not farther than six feet apart. The bolts should extend at least ten inches into the

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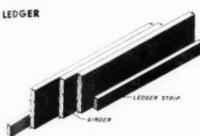
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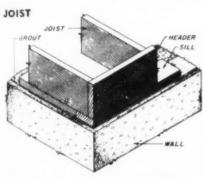
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concrete foundation.

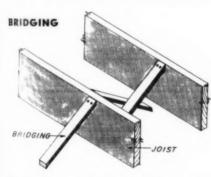
On this page are a few drawings illustrating nailing technique for some house parts. The recommendations made are based on data from numerous sources but principally on the results of tests conducted at the U. S. Forest Products Laboratory, Madison, Wis., and outlined in a booklet, "Tech-



LEDGER is nailed to girder with three 20penny nails near each joist position. This nailing will safely support a concentrated load of 300 pounds at any point on the floor, or a uniformly distributed load of 50 pounds per square foot over any joist span and spacing ordinarily used in houses



HEADER joists nailed to other joists with 20-penny nails, three to end joist and two to others. End header joist is toe-nailed to sill with 10-penny nails 16 inches on centers. If diagonal or plywood sheathing is used toe-nailing to sill is not needed except to hold joist during construction

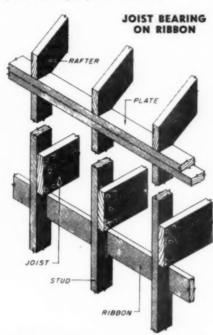


EACH piece of bridging is nailed at each end with two 8-penny nails. Nailing of bottom ends is deferred until after subflooring is put down. If possible bridging should not be nailed at lower ends until the finished floor has been nailed in

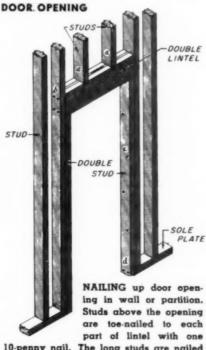
nique of House Nailing", available from the Superintendent of Documents, Washington, D. C.

Each drawing, with the description, shows the number and size

of nails recommended as well as the placement and direction in which they are to be driven. The sizes of nails indicated are the minimum considered suitable for the particular purpose outlined.



WHEN a joist bears on a ribbon it is nailed to each stud with five 10-penny nails. When there is a full story above the ribbon, two instead of five nails will be sufficient because ceiling joists will then work against the thrust from the rafters. The ribbon is nailed to the studs with two 8-penny nails at each of the bearing points



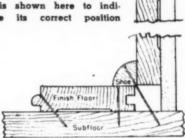
10-penny nail. The long studs are nailed to ends of each part of the lintel with two 10-penny nails. The double studs are nailed together with 10-penny nails spaced 16 inches and staggered as shown. The studs alongside the opening are nailed into the end of the sole plate.

Nailing Oak Flooring

Proper nailing is a prime requisite for construction of sturdy hardwood floors that will provide the lifetime satisfaction and serviceability for which they long have been noted.

Inadequate nailing can result in annoying floor squeaks. These tend to detract from the natural advantages of hardwood which have helped establish its almost universal use as flooring in American homes. They also give rise to subsequent maintenance problems which would never exist were the flooring nailed properly at the outset.

LAYING the first strip of finish flooring. The base shoe usually is not put in place until all the flooring pieces have been laid. It is shown here to indicate its correct position



Emphasis on adequate nailing is as important in the subflooring as in the finish flooring itself. Frequently floor squeaks seemingly originating in the finish floor are due to loose subflooring boards. In many cases it is difficult to remedy such squeaks without ripping up sections of finish flooring.

The following nailing procedures recommended by the National Oak Flooring Manufacturers' Association have been found through experience to produce a sound, squeakless strip hardwood floor, provided properly dried subflooring and finish flooring are used.

Square-edge subfloor boards of either 4-inch or 6-inch width generally are preferred. The boards, spaced about 1/4 inch apart to allow for normal expansion, should be face-nailed solidly at each bearing point with two 10d wire nails. All butt joints should rest on bearings. Boards wider than 6 inches usually are not recommended. When employed, they require extra nailing. Three 10d nails, for example, should be used at each bearing in 8-inch boards and four in 10-inch boards. These nailing procedures apply both to boards laid over joists and those installed over sleepers. In the latter type of installation, however, 1/2-inch spacing between boards is recommended.

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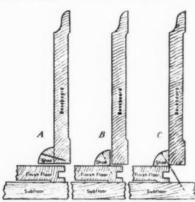
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Tongued and grooved finish flooring always should be toenailed and blind-nailed. In toenailing the nail is started through the flooring piece where the tongue leaves the shoulder and is driven in at an angle of 45 to 55 degrees to



THREE methods of placing the first strip of finish flooring and nailing the shoe:
(a) shoe nailed to baseboard: (b) shoe nailed to finish floor: (c) shoe nailed to sub-floor. The latter method is generally recommended. The danger in (a) is that a crack might develop between the shoe and the finish floor: in (b) a crack may occur between shoe and baseboard: (c) virtually eliminates those dangers

the floor. Blind-nailing consists of countersinking the nail with a nail set or a nail. Additionally, the groove edge of each piece of flooring along sidewalls should be facenailed so that the nails later will be concealed by the shoe base or quarter round. Each succeeding piece in the first course nearest a wall should be toe-nailed and blind-nailed at the tongue end in the direction of the preceding piece. Square-edge flooring, of course, is face-nailed throughout.

For finish flooring 25/32-inch thick, 8d light flooring nails should be used. These preferably should be steel cut casing nails, although wire nails are suitable. Recommended spacing of nails is one every 10 inches in flooring 3½-inch or 2¼-inch wide in that thickness. Twelve-inch spacing is adequate for 25/32 x 1½-inch flooring.

When $\frac{1}{2}$ x 2-inch or $\frac{1}{2}$ x $\frac{1}{2}$ -inch flooring is employed, 6d bright

wire casing nails are best. One nail every ten inches is sufficient. Flooring 3/8 x 2 or 3/8 x 1½-inch takes 4d bright wire casing nails spaced eight inches apart.

The 5/16 x 2-inch and 5/16 x 1½-inch flooring, which comes only in square-edge style, should be applied with 1½-inch barbed wire flooring brads having No. 16 heads. The heads should be countersunk and puttied.

Avoid hammering each piece of tongued and grooved flooring into its final position as soon as it is nailed. After laying three or four pieces, place a short piece of hardwood against the tongue of the outside piece and drive the group up snugly. Repeat the operation after every three or four pieces have been laid.

Methods for nailing plank flooring vary. Generally, however, planks require the same types and sizes of nails as do strip flooring pieces in corresponding thicknesses. Tongued and grooved planks usually are toe-nailed and blind-nailed in the same manner as strips. A good practice is to additionally fasten each plank to the wood subfloor with two countersunk screws at each end and other screws at intervals of about 30 inches along the length. Sometimes nails instead of screws are used for the lengthwise fastening, although screws generally are preferred because of their superior holding strength. If nails are used, they should be the smallheaded type. Whether screws or nails are employed, they should be countersunk and covered with wood plugs glued into the holes. The plugs, usually of walnut, not only conceal the screw or nail heads, but lend decorative effect.

Procedures for applying parquetry, including pre-assembled blocks, vary even more than those for plank flooring. Nowadays nailing often is dispensed with and the parquetry is laid in mastic. When nailing is employed, the types and sizes of nails usually correspond to those used for similar thicknesses of strip flooring. Exact directions for nailing parquetry should be obtained from the manufacturer.

An important phase of installing floors is the nailing of the shoe base or quarter round after the flooring has been laid. It should be nailed to the subfloor at an angle through the crack between the baseboard and the finish floor. This method minimizes the danger of cracks developing as a result of seasonal moisture changes. If the moulding trim is nailed to the baseboard, shrinkage of the wood may cause a crack between the moulding and the finish floor. If nailed to the finish floor, a crack may develop between the moulding and the baseboard

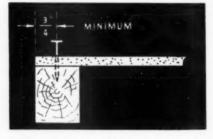
Hardwood flooring nailed in accordance with approved methods can be expected to provide the home owner with sturdy, squeakless floors which will last the life of his house without major repair.

Asbestos Cement Products

When a building material is practically everlasting and is capable of outlasting the nails that fasten it, the use of the correct type and size of nails takes on added significance. This is true of asbestos cement products: building board, siding and roofing shingles.

Asbestos Cement Siding

Manufacturers of asbestos cement siding find nailing of such



KEEP nails at least 34-inch from the edge

importance that they supply the nails which will be exposed to the weather. With each square of asbestos cement siding, corrosion resistant face nails are provided in sufficient quantity to fasten 100 square feet.

Head nails, which are covered when the upper course of siding units is applied, must be purchased separately by the user. When re-

NAIL SCHEDULE-Tongue-and-Groove Flooring Must Be Blind Nailed

Flooring Dimen- sion, In.	Size of Nails	Spacing of Nails	Following flooring must always be laid on a sub-floor, blind nailed:				
25/32 x 31/4 8d light flooring nail—wire nail or steel cut casing nail—(use cut			1/2 x 2 or 1/2 x 11/2 6d bright wire casing nails 10 in. apart 3/8 x 2 or 3/8 x 11/2 4d bright wire casing nails 8 in. apart				
	nails when possible)	10 in. apart	Square-edge flooring, as follows, face-nailed—through top face				
25/32 x 21/4	Same nails as above	10 in. apart	5/16 x 2 or 11/8-in. barbed wire flooring brad 2 nails every 5/16 x 11/2 No. 16 heads countersunk and 7 in.				
25/32 x 11/2	Same nails as above	12 in. apart	puttied				

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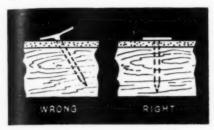
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siding, one pound of 2-inch galvanized needle-point nails per square is required for head nailing; over new work, 3/4 pound of 1½ inch nails.

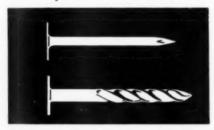
When siding shingles are applied over insulating board sheathing or gypsum sheathing, 1-inch by 3-inch



NAIL vertical to asbestos cement board

wood furring strips should be nailed over the sheathing in a horizontal position on 10½-inch centers. The nails which hold the siding should be of sufficient length to pass through the sheathing and extend into the framing members not less than one inch.

Each siding shingle should be secured with two face nails and two head nails. Be sure that at least one nail penetrates each felt backer



USE these nails for asbestos cement board

strip. The center head-nail hole is only for unusual conditions.

Asbestos Cement Roofing Shingles

Although asbestos cement roofing shingles come in several types—the American method, multiple unit, hexagonal and Dutch lap—the same type of nail, a flat-headed galvanized needle-point one, is used.

For new roofs the 1½-inch size is recommended. These nail heads must be driven down and any high spots or edges drawn down. All tubbish, nails, or chips should be removed before application is started.

When re-roofing over old shingles, 2-inch galvanized needle-point nails are required. All old shingles which are badly curled or warped should be nailed down before the new shingles are put on.

The quantity of nails per square needed for asbestos roofing shingles will vary according to the type of shingle used. Two nails are re-

quired for each shingle. Dutch lap and hexagonal shingles require storm anchors in addition to nails.

Asbestos Cement Board

Conditions under which asbestos cement board is used determine the type and size of nails needed for this product. For exterior service, or for inside work where dampness or condensation is likely to occur, a non-corrodible metal or rustproof hot dipped galvanized nail should be used. All nail heads which are exposed to the weather should also be covered with a generous mound

of gray asbestos putty or a high grade caulking compound.

Barbed or ring shanked nails ordinarily hold asbestos board better than other types. When asbestos board is applied to a sidewall or other vertical surface, it hangs on the nail. In such cases medium sized heads are satisfactory. Large headed nails should be used for ceiling applications.

For nailing against sheathing or studding—ordinary interior work—use what is called a hot galvanized asbestos shingle nail. They come, 1, 11/4, 11/2, 13/4 and 2 inches long.

TABLE NO. 18 - HAILS

Size and kind of Material	Board measure in ft.	Trade name	12" centers	Nails R	24" centers	Length of nails	No. of mails to ea. bearin
x 4 Boards and Shiplap	1000	8d common	60	48	30	21/2"	2
x 6 Boards and Shiplap	1000	8d common	40	32	20	21/2"	2
x 8 Boards and Shiplap	1000	8d common	31	27	16	21/5"	2
x 10 Boards and Shiplap	1000	8d common	25	20	13	21/5"	2
1 x 12 Boards and Shiplap	1000	8d common	31	24	16	. 21/4"	3
1 x 4 D & M Blind Nailed	1000	8d common	30	24	15	21/2"	1
1 x 6 D & M Blind Nailed	1000	8d common	20	16	10	21/2"	1
1 x 8 D & M Blind Nailed and 1 Face Nail	1000	8d common	31	27	16	21/2"	2
1 x 10 D & M Blind Nailed and 1 Face Nail	1000	8d common	25	20	13	21/2"	2
1 x 12 D & M Blind Nailed and 1 Face Nail	1000	8d common	21	16	11	21/2"	2
2 x 4 to 2 x 16 Framing	1000	20d common 16d common 10d common	20 10 8	16 10 6	10 6 4	4" 31/4" 3"	Ξ
3 x 4 to 3 x 14 Framing	1000	604 common	30	25	15	6"	-
2 x 6 D & M Flooring	1000	20d common	35	27	18	4"	1
2 x 8 D & M Flooring	1000	20d common	27	20	14	4"	1
x 4 Drop Siding	1000	7d siding	45	35	-	21/4"	2
x 6 Drop Siding	1000	7d siding	30	25	=	21/4"	2
x 8 Drop Siding	1000	7d siding	23	18	-	21/4"	2
4 x 4 Bev. Siding	-		+		-	2"	1
	1000	6d siding	23	18	-	-	-
2 x 6 Bev. Siding	1000	6d siding	15	13	-	2"	1
2 x 8 Bev. Siding	1000	6d siding	12	10	-	2"	1
4 x 10 Bev. Siding	1000	7d siding	45	35	-	21/4"	2
4 x 12 Bev. Siding	1000	7d siding	60	50	-	21/4"	3
4 x 4 Ceiling	1000	8d Finish	18	14	9	21/2"	1
½ to ¾" Ceiling	1000	64 Finish	11	8	6	2*	1
"a" Finish Lumber	1000	8d Finish	25	12	13	21/2"	2
11a Finish Lumber	1000	10d Finish	12	10	6	3"	2
1 x 3 Flooring, soft wood	1000	8d Floor Brads	42	32	21	21/2"	1
1 x 4 Flooring, soft wood	1000	8d Floor Brads	32	26	16	21/2"	1
1 x 6 Flooring, soft wood	1000	8d Floor Brads	22	18	11	21/2"	1
1/a x 11/2" Flooring, hard wood	1000	4d Casing	13	10	-	11/4"	1
1 a x 2" Flooring, hard wood	1000	4d Casing	11	8	-	11/4"	1
12 x 112" Flooring, hard wood	1000	7d Casing	27	20	-	21/4"	1
2 x 21/4" Flooring, hard wood	1000	7d Casing	20	14	-	21/4"	1
1 x 2" Furring on Brick Walls 1	00 Lineal Ft.						
Base, per 100 Lineal Ft. Sides of Trim, per side of inside trim		8d Finish Requires 1 lb. 16" on Centers. 4d Finish Requires about 1/2 lb. Total					
48" WOOD LATH, per 1000 lati		3d Fine	Require	7 lbs.			
METAL LATH, per 100 Sq. or METAL LATH, per 100 Sq.		1" Staples, Re- 11/4" No. 12 H	look Head	Nails, F			
%" GYPSUM LATH, per 100 S	q. Yds.	11/6" x 13 Gau Smooth Diame			,		
%" PLASTER BOARD, per 100		1" x 13 Gauge Smooth Diame				0 lbs.	
"WALL BOARD, per 1000 Sc		3d Flat Head Nail, Requires 5 lbs.					
4" WALL BOARD, per 1000 Se		4d Flat Hee					
%" WALL BOARD, per 1000 Se	Pt.	4d Flat Hee	d Nail, R	equires 9	Iba.		



TECHNICAL GUIDE for Builders and Craftsmen

Insulation of Concrete Floors in Dwellings

A study of concrete slabs showing satisfactory results of proper insulation

THE Housing and Home Finance Agency sponsored a series of tests conducted by the National Bureau of Standards, Washington, D.C., to ascertain some of the characteristics of concrete floors and to determine what could be done to make them more satisfactory. In brief, their findings indicate that:

At the same temperatures, concrete floors feel colder to the touch than do most other materials used for floor finishes or coverings.

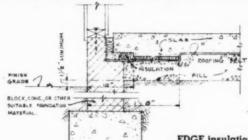
The actual temperature of a concrete floor can be just as satisfactory as that of a floor of any other material.

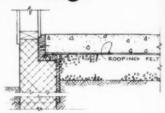
The actual temperature of a concrete slab on the ground is, or will become in time, somewhat higher than the temperature of an inadequately insulated floor over an unheated crawl space.

The heat loss of slab floors laid on the ground is primarily through the edge; the heat loss through the center of such floors is relatively small.

The heat loss of concrete floors laid over a crawl space is principally through the edge, but the heat loss through the center of such floors is relatively higher than with floors laid on the ground.

Insulating the concrete floor slab at the edge protects it from heat loss to the outside. Since the greatest rate of heat loss is at the perimeter of the slab, the provision of insulation, at the edge and for a





EDGE insulation around perimeter of slab retards heat loss. Insulation extends under slab as indicated

distance under the slab, will retard this loss. This will produce a higher temperature on the upper surface of the slab, and thus increase comfort and decrease fuel consumption in the most efficient manner. Such insulation produces a more even surface temperature over the entire floor.

Insulation at the edge is much more important with concrete floors than with floors of other materials, because concrete conducts heat more readily than other building materials.

Aside from purely structural factors, the important items for consideration are the floor temperature which can be maintained, and the method of insulation to achieve the desired results.

For comfort, the floor temperature should not fall below 60 degrees F. at approximately one foot from the outside wall when the room temperature is maintained at 70 degrees F. The temperature of the floor farther from the outside walls will, of course, be higher. This condition may be accomplished by one or a combination of the following:

(1) By insulating the edges of the concrete slab laid on the ground and extending the insulation for a distance under the slab around its perimeter.

(2) By insulating the slab edge of concrete floors laid over crawl spaces and insulating the exposed wall of the crawl space.

Insulating materials placed in or near the ground will probably be subject to attack by moisture, mildew, or termites. This, together with pressure from the earth or structural loading will compress or otherwise destroy the effectiveness of the insulating material.

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Where a material depends upon coating with asphalt or coal tar pitch for protection, it is necessary to select the coating carefully.

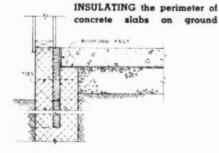
The following table contains information about several materials which might be used to insulate the perimeter of concrete slabs and crawl space walls. The materials are not subject to destruction by termites or insects, nor will exposure to moisture have any appreciable effect upon them, except in the case of the cane or wood fiber boards.

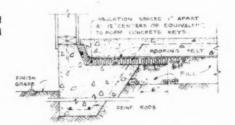
1. Cellular glass enclosing sealedin gas, such as "Foamglas." Thickness: 2 inches, 3 inches, 4 inches, 5 inches.

2. Glass fibres with plastic binder, such as "Fiberglas," coated or uncoated. Thickness: ¾ inch, 1 inch, 1½ inches, 2 inches.

3. Cane or wood fibre boards, such as "Celotex." Thickness: ½ inch, 25/32 inch, 1 inch.

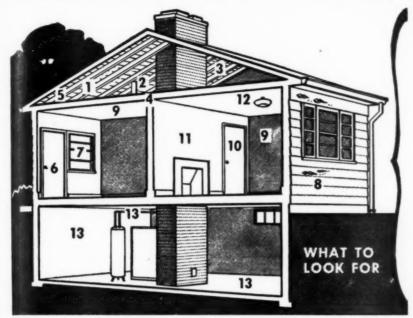
4. Hard cellular rubber enclosing sealed-in gas, such as "Hard Rubber Board" or "Rubatex." Thickness: ½ inch, ¼ inch, 1 inch, 1¼ inch, 1½ inch, 2 inches.





FLOATING slab foundation in basementless houses. See drawing for insulation.

Condensation in Homes-Where, Why and What to Do



ONDENSATION is most likely to occur in the home at two specific times-within six months after a house is built (excessive moisture is caused by new plaster and fresh concrete), and in excessively cold weather when interior humidity is high.

At the time a home is built, the humidity can be controlled to suit individual preferences. In small, tightly-built homes, the moisture from normal living processes usually provides sufficient humidity for average comfort.

Uncontrolled humidity is likely to cause trouble with any type of construction. Control of excessive humidities varies with the type of structure and the parts of a house, but there are three principal cures which, singly or in combination, may correct condensation troubles. These are: (1) Reduction of interior humidity by: controlling water vapor at source, ventilating, or eliminating deliberately added moisture. (2) Use of membrane vapor barriers to stop flow of moisture through building materials. These include metal foils, certain building papers and paints. (3) Raising inner surface temperatures by insulating (this eliminates visible condensation).

In attics, ceilings and walls, condensation can be avoided by use of vapor resistant building paper, which is applied to the warm side of wall or ceiling (under the finish) when it is constructed. The several types of vapor resistant papers are Duplex, or laminated, consisting of a continuous sheet of asphalt between two sheets of paper; surfacecoated and glazed asphalt-saturated roofing paper; and aluminum or other metal foil (usually paperbacked). Ordinary asphalt roofing felt (paper) and building papers are not good vapor barriers.

The tendency to blame insulation for paint troubles caused by condensation is not fair, since neither the insulation nor the paint is at fault; the blame lies in the lack of control of water vapor.

Paint peeling and paint-blistering may result from condensation of moisture within the house, such moisture penetrating the walls until it reaches the underside of the exterior paint. The building materials through which the moisture has passed are porous; the paint is not.

As a result, the moisture gathers under the paint and forms blisters. A membrane vapor barrier will eliminate such difficulties.

Excessive humidities in the house which cannot be controlled at their source can usually be most effectively reduced by ventilation. There is no fixed rule for the amount of air to be used.

A controlled source of ventilation is more satisfactory than uncontrolled ventilation from cracks

ATTIC UNHEATED

- 1. Frost on underside of roof boards
- 2. Frost or water on soil pipes
- 3. Frost or water on nails in roof boards
- 4. Frost on underside of attic floors over an interior partition
- 5. Frost on cold surfaces over cornice

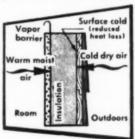
FIRST FLOOR

- 6. Frost on door handles and hinges
- 7. Water or ice on windows
- 8. Paint-peeling
- 9. Damp spots on walls and ceilings
- 10. Damp spot in closet
- 11. Condensation from flue products
- 12. Damp spots around light fixtures

BASEMENT

13. Water on cold water pipes, walls and floors in summer

> around windows and doors. Air brought into the house by ventilation should preferably be heated (except in unheated attics) and the

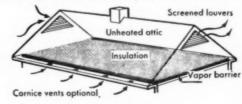


amount controlled and properly distributed.

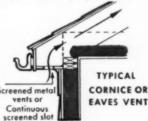
If insulation is placed on the upper floor ceiling and efficient vapor barriers are installed, attic ventilation is not necessary, except to remove summer heat.

When an attic is to be ventilated. the air change requirements are: For vents-total area of openings should be at least one-fourth square inch per square foot of attic floor space. (Vents should be well distributed.) For mechanical ventilation, one to one-and-one-fourth air changes an hour; or at least six cubic feet per hour per square foot of attic floor space.

Drawings and data courtesy of Small Homes Council, University of Illinois.



LOUVERS ON GABLE ROOF Screened louvers should be at high point of roof.



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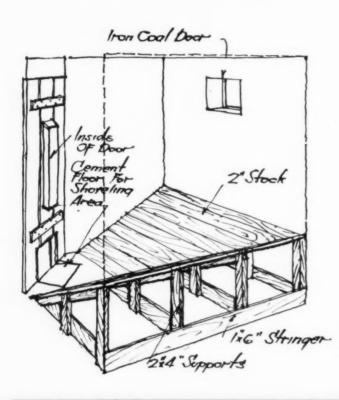
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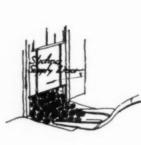
Rub-Thickh, 11/4



Designed for Coal







THIS practical coal bin has a double-inclined wood floor of two inch planking supported on a 2 x 4 framework. This floor slopes at an angle of 30 degrees from the concrete floor level. Thus, gravity keeps coal always available at the supply door. The door is a 15-inch square sliding panel with wood guides. Supply door is held at open position by a simple pulley and sash weight arrangement, with the weight riding in a wood housing on the inside of the main door.

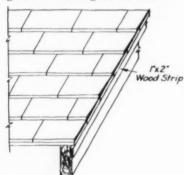
As shown in the detail drawing, the supply door drops into closed position in the sloping chamfered trough that is formed in the cement floor. This trough makes it easy to scoop up full shovels of coal, with no scattering and with less effort.

The coal bin described here is designed by American Standard for use in new or remodeled houses. Through the use of the sliding door it is practically dirt- and dust-proof.

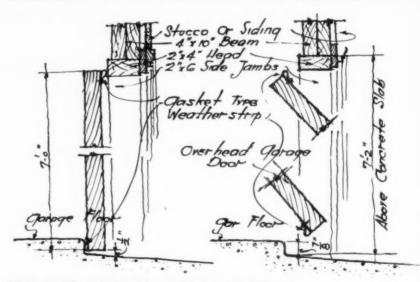
HOW TO DO IT . HOW TO DO IT . HOW TO DO IT . HOW TO DO IT

Gauge for Use in Applying Shingles

A SIMPLE and effective method is used herewith to keep the outer edge of roof shingles uniform.



A 1 x 2 inch strip of reasonable length is temporarily secured to the upper edge of facia board with small finish nails. Shingles are placed flush with the outer edge of strip. The strip can easily be removed and moved to a new position as the shingling progresses.—
A. N. Nelson, Kansas City, Mo.



How to Weatherstrip an Overhead Door

THE weatherstripping of an overhead door is often a problem, since nearly all overhead door hardware sets have metal weatherstripping on the sides only.

To stop the draft at top and

bottom, hang the door before the concrete floor is placed. Make a %-inch rabbet for door to strike against at bottom. Tack weatherstrip on top and bottom.—J. G. Caldwell, San Mateo, Calif.

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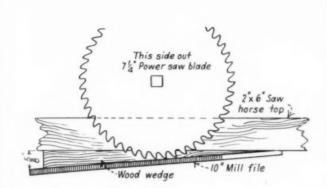
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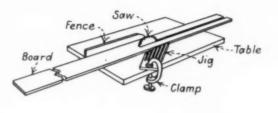
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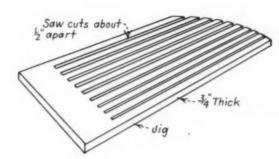


How to Make a Power Saw Jointer

IN SHARPENING a saw blade, the most important consideration is to be sure that the blade is kept perfectly round.

The following method has proved very effective: Fasten an old mill file under a saw horse. Force saw to cut through the horse, carefully sliding it ahead until saw establishes a very slight contact with the file.—Submitted by J. G. Caldwell, San Mateo, Cal.

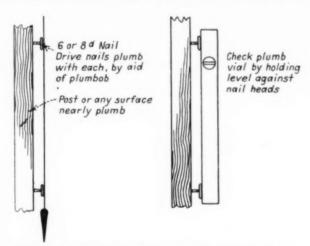




How to Secure Board to Saw Table

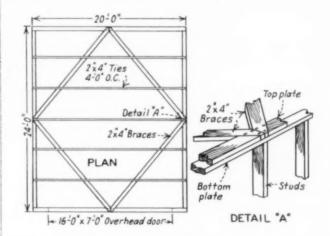
HERE is an idea for a jig which can be used on a circular saw table when the length of the boards or lattice strips being cut prevents the operator from getting close to the table. When clamped to the table the jig acts as a third hand, squeezing together and holding the stock tightly against the fence.—Submitted by Warren Heartquist, Malden 48, Mass.

HOW TO DO IT . HOW TO DO IT . HOW TO DO IT . HOW TO DO IT



Method of Checking Vial on Level

A SIMPLE method of checking the plumb vial in a spirit level: Drive two 6d or 8d nails into any nearly plumb wall or post, at a distance apart of about two inches less than the length of the level. Set nail heads plumb with each other by use of plumb bob. Then check plumb in level on the nail heads.—Submitted by Claude O. Campbell, Jacksonville, Fla.



How to Brace Front of Two Car Garage

HERE is an easy way to brace the front of a garage: After the walls of the garage have been raised, plumb corners and straighten walls. Do not double plates. Cut four braces as shown and spike securely. After sheathing is on walls, remove temporary braces.—Submitted by J. G. Caldwell, San Mateo, Cal.

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TECHNICAL GUIDE for Builders and Craftsmen

Short Cut for Estimating Cement Blocks

HEREWITH a simple and practical method of estimating the number of concrete blocks required for a foundation. Example: Basic block size is 8 x 8 x 16 inches. Building is 24 x 26 feet at foundation. The perimeter of house totals 100 feet. One hundred divided by 4, a unit of measurement, equals 25.

Twenty-five by three, the number of blocks to each four feet of wall, or unit of measurement equals 75—this is the number of blocks required for one perimeter

Seventy-five by ten, the number of rows required, equals 750 blocks—the total number required for a seven foot high basement. From this total deductions should be made for door and window openings.—Walter A. Styles, Collingswood, N.J.

How to Make an Effective Anchor Bolt

THE PROBLEM of anchoring applied members to a concrete wall can be solved by driving a bolt with wedge into a hole drilled in the concrete. The method is as follows:

Saw the end of the bolt opposite the head a depth of about two inches. Start the edge of metal wedge into the groove. Insert bolt with wedge into the drilled hole. Then drive bolt into hole, forcing wedge into groove, thus spreading the shanks of the split bolt. This secures bolt rigidly to concrete wall, holding applied members in position. Rich mortar should then

be forced around bolt.-D. C. Robinson, Altamont, N.Y.

How to Clean the Steel Square

A CARPENTER'S steel square which has become rusty from use in damp or wet weather can be effectively cleaned by rubbing the entire square with dry cement.—Samuel J. Bartuck, Scranton, Pa.

How to Score Walls for Tile

A TROWEL is recommended by manufacturers for roughening the paste in the application of tile board. If a trowel is not on hand, the feather-edge of a common wood shingle serves the same purpose. The feather-edge of a wood shingle has all teeth.—Samuel J. Bartuck, Scranton, Pa.

How to Apply a Level to Old Buildings

INSTEAD of the use of the straight edge and level in straightening old buildings such as barns, and sheds, the following method is recommended:

Place two posts approximately four feet high six feet apart at about three rods from the building, depending upon the size and height of the building. On these posts fasten a board with the top edge straight and level. It will then be possible to look over this board and scan the entire, side of the building. This system saves much time required for leveling and is entirely satisfactory for most jobs of this kind.—H. B. Johnson, Rochelle, Ill.

How to Drive a Nail in Knotty Wood

A SUGGESTION for driving nail in hard or knotty wood when no soap or wax is handy: Rub the nail in your hair. This will spread enough oil on the nail to make it drive much more easily.—H. B. Johnson, Rochelle, Ill.

HOW TO DO IT . HOW TO DO IT . HOW TO DO IT . HOW TO DO IT

Built-in Features for the Kitchen

By R. J. Alexander

IN THE PLANNING of a new home the needs of the kitchen are given first consideration. This is a room around which all household activities revolve; therefore, if the completed house is to be judged as being successful, all the basic requirements of this room, plus features that add to its livability and attractiveness, need to be incorporated.

In designing today's kitchen the architect, owner or builder have at their disposal a large selection of products that add color and interest to this room. Linoleum in either solid color or gay patterns are used for floors, counter tops and walls. Rubber and cork tiles used for the same area are equally effective and durable. Tiles of metal, clay and plastic in a large assortment of colors are also used for floors and splash-boards. Various types of wall boards finished or unfinished can also be obtained. In the case of some of the wall surfaces, bright metal mouldings, or metal with colored linoleum inserts for edgings, bindings, corners and caps are used.

If the space permits, a number of special built-in features may be included in the kitchen, such as a

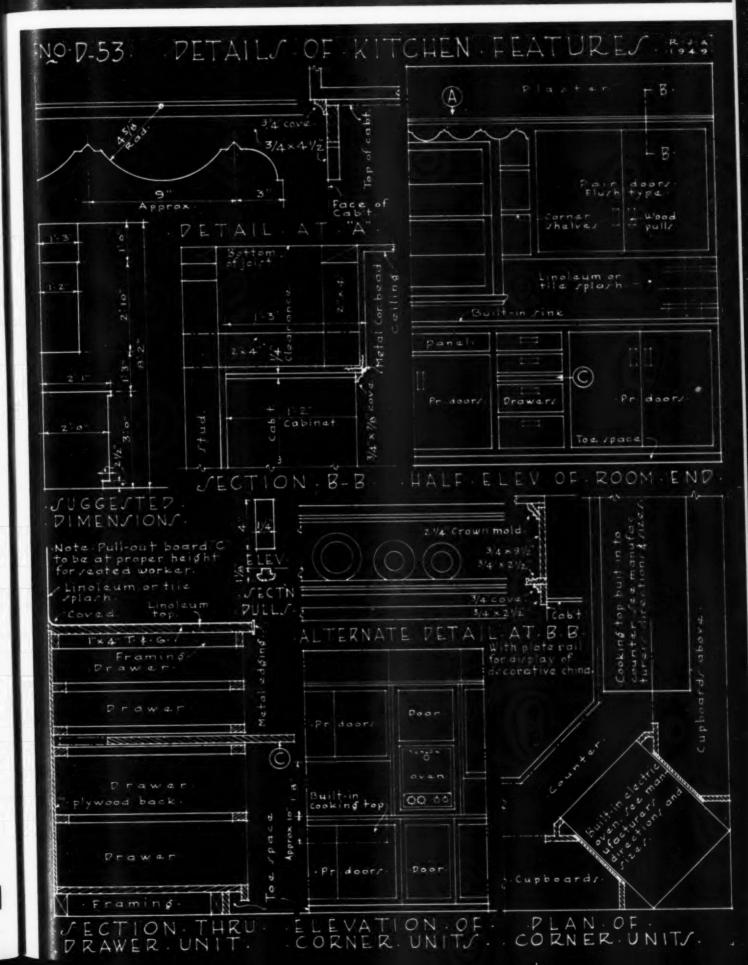
broom or utility closet, cabinet or storage space for toasters, mixers, serving trays, storage for soaps and other cleaning supplies.

Cabinets for storage of the basic items may be made on the job or bought from the manufacturer. They come in a variety of sizes, and can be arranged to fit nearly any space or requirement. Cabinets may be obtained either finished or unfinished in metal or wood. Most of the manufactured cabinets include special compartments for trays, metal lined drawers, silver and cutlery drawers and spice racks. If the cabinets are made on the job, materials should be kiln dried, parts should be glued together, hardwood drawer guides and stops installed, and the workmanship should be the best available.

Other features to be considered in the layout of a kitchen are electric dishwasher and garbage disposal units. Location of the sink and refrigerator must also be considered in planning this room.

The severe "operating room" look in kitchens is no longer popular; women prefer a colorful, homelike room, expressive of their taste and individuality.

AMERICAN BUILDER'S BETTER DETAIL PLATE



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DEALER REVIEW



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NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

Dealer State and Regional Conventions Continue to Draw Record Attendance

DEALER state and regional associations throughout the United States continued their series of annual meetings during February and March. Attendance trends are upward and a marked increase in interest in both the business sessions

and exhibits is apparent.

Discussions of merchandising techniques, methods of cutting expenses in business conduct and in building operations and federal and state legislation are especially interesting to dealers this year. The threat of public housing legislation by the federal government invariably draws lengthy resolutions from the committees and the resolutions are adopted enthusiastically by the membership.

Secretaries and other executive officers of the dealer associations who stage these conventions with the help of dealer committees all find each year's job entails more detail and hard work preceding the meetings. When the conventions opened this year they also found themselves, in many instances, faced with record attendance which crowded every facility. Frequently many attending conventions were unable to attend annual banquets and entertainments because of a sellout of tickets long before all those who wanted to attend were able to obtain reservations.

Highlights of the meetings conducted during the latter part of February and early part of March follow:

Middle Atlantic

A clinic for management under the direction of Pennsylvania State College was combined for the first time with a convention of the Middle Atlantic Lumbermen's Association at the association's 57th annual meeting February 9-11 at Philadelphia.

Claude G. Ryan of the John D. Bogar Lumber Co., Lancaster, Pa., was elected president of the association for 1949. G. Hunter Bowers, William D. Bowers Lumber Co., Frederick, Md., is the new

vice president and Ray E. Latshaw, Royersford, Pa., was named secretary-treasurer.



CLAUDE G. RYAN

Moderators for the dealer-management clinic were Joseph F. O'Brien, professor of public speaking and Paul R. Beall, associate professor, department of speech, both of Pennsylania State College. They were assisted by a panel of experienced lumbermen and representatives from allied industries.

Directors installed at the convention for the current year were Robert A. Jones, Philadelphia, executive director; Elias W. Nuttle, Nuttle Lumber and Coal Co., Denton, Md., dealer director to the National Retail Lumber Dealers Association; and Charles D. Hummer, Hummer and Green Co., Chester, Pa., dealer director to the U.S. Chamber of Commerce.

Total registration at the meeting of the Middle Atlantic group—which is comprised of Pennsylvania, New Jersey, Maryland, Delaware and the District of Columbia—was 1,360, of which 475 were Association members. There were 92 exhibit booths.

Mountain States

Members of the Mountain States Lumber Dealers Association reelected the entire slate of 1948 officers at their 56th Annual Convention and Building Materials Ex-

The President's Column



By C. B. SWEET President, NRLDA

The Washington pot continues to boil. The bureaucratic cooks are attempting to come up with a dish for the American people, in which they have thrown everything but the kitchen sink. There has been a dash of public housing with its proposed expenditure of some 20 billion dollars, a pinch of socialized medicine to cost additional billions, and a sprinkling of continued farm support at an unknown cost. The poor misguided souls are still under the impression that they have a mandate, although it hardly seems fair to consider the wishes of only 25 per cent of the eligible voters as a mandate.

The race continues to see who can take the most away from the haves to give to the have-nots. Surely sometime, someone in government will discover that neither an individual nor a government can continue to spend beyond his or its income. It should be a sobering thought to realize that the present tax take by Federal, State and Local governments is now more than 25 per cent of the national income; and that one out of eight workers, instead of being productive, is on the public's payroll.

Sooner or later, someone other than capital must start giving. Labor must give more in productivity; it must give up its rocking chair money while out on strike. The farmers must take less in the way of paritys. Management and business in general must give more of its time and "know how"

(Continued to page 248)

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ber den Lun position February 9-11 at the Shirley-Savoy hotel, Denver, Colo. Despite the almost impassible condition of roads in certain areas, the attendance was almost 1,000, only slightly under the all time high of 1948.

The officers retained for 1949 are W. P. Harley, J. C. Baldridge Lumber Co., Albuquerque, N.M., president; and C. A. Wangberg, Crissley and Fowler Lumber Co., Colorado Springs, Colo., vice president.

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Re-elected as directors are R. B. Allen, Home Lumber Co., Portales, N.M.; A. W. Edwards, Cheyenne Lumber Co., Cheyenne, Wyo.; R. E. Nutting, Littleton Lumber Co., Littleton, Colo.; C. C. Phillippe, Thompson Lumber and Hardware Co., Basin, Wyo.; J. F. Scott, East Denver Lumber Co., Denver, Colo.; W. J. Truitt, Platte Valley Lumber Co., Sterling, Colo.; and H. I. Williams, Durango Lumber Co., Durango, Colo. J. V. Smith of Denver is secretary-manager.

The convention committee consisted of J. F. Scott, chairman, H. H. Hast, W. E. Kellogg, Jr., G. C. Sullivan, S. R. Trythall and C. A. Wangberg. Mrs. R. F. Frantz was chairman of the hostess committee.

Virginia

With a registration of 450 the Virginia Building Material Association chalked up a new record in attendance at the 23rd annual convention in the John Marshall Hotel, Richmond, February 17 and 18.

S. Lester Burrough, Tappahannock Supply Co., Tappahannock, was elected president. Other officers are: Maurice R. Large, Farmville Manufacturing Co., Farmville; Wm. N. Neff, Vance Supply Company, Abingdon; L. R. O'Hara, Yorktown Ice & Cold Storage Co., Yorktown; Ernest L. Whitehurst, Whitehurst-Wilbur Co., Norfolk, all vice presidents; Craige Ruffin, Ruffin & Payne, Inc., Richmond, treasurer. Earl R. Hunt, Arrington Lumber Co., Norfolk, was named dealer-director to the National. Harris Mitchell is the secretary.

Nebraska

Attendance at the 1949 convention of the Nebraska Lumber Merchants Association set a new record when approximately 1,400 persons attended the 58th annual event at the Omaha city auditorium, February 23-25.

Carl Johnson of the Home Lumber Co., Shubert, was elected president and Paul Ely, Ely-Hoppe Lumber Co., North Platte, vice

president. Directors are elected at annual spring meetings held throughout the state.

One hundred and one firms exhibited products and, because of lack of space, it was necessary to turn down 46 others.

Wisconsin

Ralph E. Nuzum of the Nuzum Lumber Co., Viroqua, Wis., was elected president of the Wisconsin Retail Lumbermen's Association at the group's 59th annual convention held in Milwaukee in February. He succeeds C. K. Arp of Elkhorn, who served two terms in the office.

New directors for 1949 are Kneale Lindsay, Little Wolf Lumber Co., Manawa; J. C. Hamilton, Crossett Lumber Co., Tomah; and



RALPH E. NUZUM

A. D. Krause, American Lumber and Manufacturing Co., Green Bay. B. H. Roderick of the Roderick Lumber Co., Brodhead was reelected a director.

Registration at the 1949 convention reached 3,018. One hundred and sixty-five exhibitors occupied 172 booths. All business sessions in the auditorium were filled to capacity and 900 attended the convention banquet at the Schroeder hotel.

Indiana

Delegates to the annual convention of the Indiana Lumber and Builders Supply Association at the Murat Temple in Indianapolis in March elected Charles Pease of Terre Haute as president for 1949. W. I. Brunton, Scottsburg, was named vice president and R. W. Slagle, Indianapolis, secretary-treasurer.

Registration at the meeting reached the all time high of 3,692. There were 179 exhibits. Two floors were used, providing wider aisles and larger booths than in previous displays.

A new feature of the convention

was an exhibitor-dealer theater party at the Murat theater, which



CHARLES PEASE

was attended by 1,500. The meeting closed with a banquet and dance at the Claypool hotel.

North Dakota

J. P. Smith, Valley City, was elected president of the North Dakota Retail Lumbermen's Association at the final session of the 41st annual convention March 2 at Fargo. He succeeds John Roethlisberger of Bismarck, the 1948 leader.

The new vice president is A. E. Tuftendahl of Crosby. Walter Will, of Stanley, was named to the board of directors.

Roethlisberger opened the convention with the annual president's address, reviewing the work of the Association in 1948. He predicted that the building industry would continue its present production rate of one million homes a year for the next decade, and that 1949 would break all records for the construction of farm and rural buildings.

Fargo was again selected as the site of the 1950 convention.

NRLDA Prepares Pamphlets For Use By Dealers

Three pamphlets for use in local public relations programs against public housing have been published by the National Retail Lumber Dealers Association and are being made available to associations and dealers at a nominal cost.

"No Vacancies," a four page reprint from Reader's Digest, is a condensation of a story about the effect of rent control in France, where construction of rental homes has been at almost a standstill since World War I.

A veteran's viewpoint on "getting something for nothing" from the government is expressed in the

(Continued to page 248)



New Products Offered by Manufacturers

ALUMINUM SCREEN

AB4944

All aluminum "frameless tension" screen for double hung windows can be quickly installed by home owner without tedious fitting. Screens are snapped on upper



blind stop and drawn taut at sill with thumb screw. Tension is maintained on sides by five strand salvage edge, and "free floating" sill bar at bottom corrects out-of-square sills. Keystone Wire Cloth Co., Hanover, Pa.

GAS FURNACE

AR4942

Available in three sizes for small and medium-sized homes, Timken Silent Automatic gas-fired winter air conditioning furnaces have output ratings of 60,000, 80,000 and 107,000 B.T.U. at plenum. Each unit consists of clog-proof monopart burner,



furnace and radiator assembler, blower, air filter and automatic humidifier (extra optional). Furnace and radiator are of heavy hot-rolled steel. Cabinet construction is auto-body steel, finished in silvertan baked enamel. Timken Silent Automatic Div., The Timken-Detroit Axle Co., Jackson, Mich.

WINDOW FAN

AB494

Chelsea Type WPJ fan is portable, direct drive window fan for ventilating small areas. For use in homes, apartments, offices, hotels, hospitals and conference rooms. Fan tits into upper panel of standard window and permits the raising and lowering of the upper sash at will. Adjustable from 25 to 36 nches, it is turnished complete with



pull-chain switch and plug-in extension cord. Finished in baked enamel. Air delivery, 1,000 C.F.M. with 1/25-H.P. motor operating at 1550 R.P.M. Chelsea Fan & Blower Co., Inc., 1206 Grove St., Irvington 11. N. J.

RADIAL SAW

AB494

Walker-Turner "900" series radial saw features Centr-Pivot offset yoke that permits all cuts to be made in convenient table area. For cutting wood, plastic, and similar materials, capacity is 31/8-inches, with



9-inch blade. Motor has two and one-half times overload capacity. Saw rips to center of 48-inch panel. Table is 46x24 inches, of laminated hard maple. Two models are RA901 and RA902, both 11/2 H.P. single phase. Walker-Turner Div., Kaarney & Trecker Corp., Plainfield, N. J.

RECEPTICAL STRIP

AB4940

Floor and table lamps can be turned on or off from a wall switch with new multi-outlet plug-in strip. With assembly, mounted on baseboard or as chair-rail molding, electrical equipment can be selectively control of the selective control



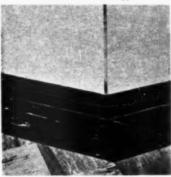
trolled at either wall or equipment. Three No. 12 AWG copper conductors are factory-wired into strip. Conductors serve three-slot receptacles spaced at 18-inch intervals along 24-gauge steel assembly. Eliminates major amount of behind-thewall wiring. National Electric Products Corp., Chamber of Commerce Building, Pittsburgh 19, Pa.

PLASTIC COVING

AB4946

America

Vinyl plastic set-on-base coving is in onepiece lengths of 100 feet. Average installations can be made with no dirt-catching seams. Pre-formed corners are unnecessary. High gloss finish does not catch dirt readily and can be dusted off easily. Four inches high, it is usable with all types of hard



surface flooring, such as rubber and asphalt tile linoleum. It can be applied to any type of wall with ordinary floor covering adhesives. Fremont Rubber Co., 164 Mc-Pherson Highway, Fremont, Ohio.

AUTOMATIC WATER HEATERS

RS A DAGAT

U. S. Automatic Gas-Fired Water Heaters and U. S. Automatic Oil-Fired Water Heaters are available in commercial sizes for supplying the hot water requirements of hotels, apartments, restaurants and stores. Can be used alone, or connected with hot water storage tanks. Oil-fired unit has heat



output of 93,000 B.T.U.'s per hour. Capacity of gas-fired units range from 36,000 to 126,000 B.T.U.'s per hour. Oil-fired unit requires no more floor space than a chair, and includes automatic operation, matched U.S. boiler-burner unit, air-cooled base, glass wool insulation and maroon baked enamel covering jacket. Oil-fired unit is illustrated here. United States Radiator Corp., 300 Buhl Building, Detroit, Mich. (Continued to page 168)

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If the job calls for Rugged Service



You're right with Ro-Way

 Many a commercial or industrial installation of overhead type doors calls for extra strength, extra power for smooth, easy operation under heavy duty service.

That's why Ro-Way Doors are built with an extra margin of sturdiness and power.

In sizes of 200 square feet or more, for instance, bottom rails are made from 8-inch stock—with meeting rails, end stiles and muntin bars proportionately heavy. Sections are reinforced with U-Bar stiffener or U-Bar truss. Friction-reducing track is extra heavy—3 inches wide and ½ inch thick. Ball bearing rollers are husky 2¾ inchers with double-thick tread. Two—or four—spring hookup is power-metered to the weight of the door.



And every door is every inch a Ro-Way—completely designed, engineered, and built by Ro-Way. Even the hardware is fabricated in Ro-Way's own plant, and Parkerized and painted after fabrication.

That's why we say—You're Right with Ro-Way for every overhead type door requirement—commercial, industrial or residential.



There's a RoWay for every Doorway!

ROWE MANUFACTURING COMPANY . 750 Holton Street, Galesburg, Illinois, U. S. A.

(Continued from page 166)

TILTING ARBOR CIRCULAR SAW AB4917

The compact Delta-Milwaukee 8-inch tilting arbor saw, fully adjustable, has 2-5/16inch deep cutting capacity. Maximum cut at 45 degrees is 1% inches. Dado cuts up to 13/16 inches wide can be made. In operation, doing 3,800 RPM with a 1,725 RPM motor, 8-inch blade provides a total of 7,800 surface feet per minute. Table is 25 inches deep, 33 inches wide. Table in-



sert provides full support to work. From front edge of table to center of blade, dis-tance is 15% inches. Blade guard rides with work. Can be run by any standard 3/4 or 1/2-H.P., three phase, single phase or DC motor, for all common voltages and frequencies. Delta Manufacturing Div., Rockwell Manufacturing Co., American Building, Chicago, Ill.

ASBESTOS-CEMENT BOARD AB4907 Asbestos Flexboard is now available in 4x4 foot size. Each package contains two sheets, weighing approximately 40 pounds per package for 1/8-inch thickness and 56 pounds for 3/16-inch thickness. J-M asbestos-cement board is applicable to either curved or straight surfaces, and may be used on exteriors or interiors. Fire, weather and wear-resistant. Also available in plain sheets, 4x8 feet by 1/8-inch, or 3/16-inch, and in tile scored sheets 4x4 feet by 1/8-inch thick. Johns-Manville, 22 E. 40th St., New York, N. Y.

ELECTRIC GARAGE DOOR AR4915 **OPERATORS**

Model MR Barcol Overdoor operators are designed for commercial, industrial, public and residential doors where momentary contact control is desired. Motors are of the "instantaneously" reversing type. They can be furnished in 110 volt, 60 or 50 cycle, single phase AC, and in 220 or 440



volt, 60 cycle, three phase AC. Motor size furnished depends on door to be handled. A centrifugal clutch allows motor to come up to speed before starting load. and clutch will slip when normal driving load is exceeded by more than a reasonable amount. This affords protection to door, automobile and persons. Handles door sizes up to 400 square feet. Barber-Coleman Co., Rockford, III.



WALL TILE INSTALLATION MATERIAL AB4904

Grout-adhesive, for installing Veos wall tile, allows the tile to be installed with one material and in one operation. Material is spread on foundation board base, and when tile is applied it forces enough of the material between the joints for pointing. Provides strong adhesive qualities. Low in shrinkage, it eliminates hairline cracks, re-duces water absorption. Grout lines can be pointed by using the finger. Armstrong Cork Co., Lancaster, Pa.

BUILDING PAPER

Skufpruf building paper roll weighs 60 pounds, is 10 feet wide and 100 feet long. Easy to handle, it is made of an unbroken sheet of Richkraft Skufpruf, heavy duty paper. Strong, waterproof, scuffproof, shrink-resistant. Material is lightweight. The Richkraft Co., Builders Building, Chicago L. III. cago I, III.

STEEL CASEMENT WINDOWS AB4927

Steelcraft steel casement window incorporates sections 11/4-inches-deep that permit double glazing with Thermopane, Twindow, or other types of insulating glass. Sections are made of cold rolled steel,



offering smooth base for finishes. Double weathering contact all around frame and ventilator. Corners mitered and butt welded. Sections designed with ample room at jamb for attaching screens and storm windows. The Steelcraft Manufacturing Co., Rossmoyne, Ohio.

SMALL PAINT MIXER

Red Devil No. 31 Junior paint mixer may be conveniently carried to the job in tool box or kit. Useful in handling cans of one gallon or less. Driven by electric fractional horse power motor which operates on 110 volt, AC current. Mixing parts removable. Splash plate prevents material in can from getting out of hand. Red Devil Tools, 130 Coit St., Irvington 11, N. J.

GRAVITY TYPE WARM AIR FURNACE

Lau Package Blower-Filter unit circulates warm, dust-free air and maintains evenly balanced temperatures throughout the home. Center-suspension blower wheel provides air delivery. Made of heavy gauge steel. Large access door permits



easy servicing of motor, belt or filters. Door may be left off during summer opera-tion. Cold air return can easily be fitted to top of unit. Casing finished in surf green baked enamel. The Lau Blower Co., Dayton 7, Ohio.

FLECTRIC DRILL

AB4938

General purpose 1/2-inch capacity Stanley electric drill, No. 112, is compact and light-weight. Chuck spindle offset permits operator to drill in close quarters without removing pipe or spade handles. Other features include alloy steel gears, thrust ball bearing on spindle, strong aluminum alloy housing, automatic release safety switch with locking device and Jacobs three-jaw chuck. Bench stand No. 524, on which No. 112 can be mounted to make convenient drill press, is available. Stanley Electric Tools, New Britain, Conn.

UTILITY STANDS

For masons and plasterers as mortar board stands. Same design available in two sizes. Larger stand is ideal as a portable table for mixing paints and holding paint pots, brushes and tools. Smaller stand collapses to 30x30x11/2 inches; the larger to 30x45x 11/2 inches. Adjustable to various heights by changing lengths of the two chains extended between the two sides. Wilson-Albreicht Co., Inc., 3565 Wooddale Ave., Minneapolis 16, Minn.

HEAVY DUTY STAPLER

AB4935

Heller engineered hand-side stitcher uses wide or extra wide staples in several leg lengths from 1/4 to 9/16-inch. May be



bolted in any convenient position to bench, work table or packing table. Long actuating arm for strong leverage. The Heller Co., 2149 M Superior Ave., Cleveland 14.

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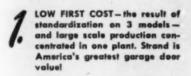
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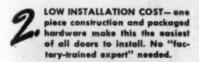
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STRONGER, MORE DURABLE GARAGE DOORS AT LOW COST

... Installed by Thousands of **Builders Every** Month







LOW MAINTENANCE COST- as the result of rugged all-steel construction, galvannealing, and Strand dependability. Your cus-tomers will be happy with their



Your customers are quick to appreciate the advantages of this "best seller" among garage doors:

The strength and durability of steel-that can't sag, warp, rot or shrink. Uniform steel sheets are milled to exact specifications - there's no absorption of moisture as with some other materials; the weight remains the same in wet or dry weather; this assures uniformly easy operation.

Strand Doors are sturdily built to meet conditions of shipping, delivery and handling. Welded construction is a feature - no screws or bolts to work loose.

These doors are galvannealed for rust resistance with a heavy galvanized zinc coat, plus high-temperature heattreating that assures an excellent base for paint, without special priming coat.

There are 2 types of Strand Doors for 8' x 7' opening -Receding (track) and Canopy. Also a Double-Garage Door (Receding type only) that fits 16' x 7' opening, unobstructed by center post. Order from your dealer, or



Welded All-Steel



Welded All-Steel



Welded All-Steel





MAIL COUPON FOR INFORMATION AND DEALER'S NAME

ALL-STEEL . GALVANNEALED . OVERHEAD

AGE DOORS AND DOUBLE GARAGES

STRAND GARAGE DOOR DIVISION Detroit Steel Products Company Dept. AB-4, 2250 E. Grand Blvd. Detroit 11, Michigan

Please rush detailed description of Strand all-steel Garage Doors, for 8' x 7' and 16' x 7' garage openings.

I am a 🗌 Builder 🔲 Dealer 🖂 Prospective Owner 🖂 Other

Name

Address

State

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(Continued from page 168)

UTILITY UNITS

AB4918
Panel unit consists of complete kitchen UTILITY UNITS and bathroom fixtures and fittings built around a new, narrow, low wall core which contains a complete soil and waste stack assembly ready for easy connection with underground stub lines. For use in low-



cost homes with or without basements, and for installation in multi-story apartment buildings. This Ingersoll panel utility unit can be used in connection with warm-air radiant heating installations. Also adaptable where fireplaces or space heaters provide heat. Ingersoll Utility Unit Div., Borg-Warner Corp., 321 Plymouth Court, Chicago 4, III.

CABINET SINKS AB4910
Kitchenaider cabinet sink, 54-inch model, has two drawers and three large compartments for undersink storage. Two drainboards, single bowl, and impressed soap dish are incorporated in porcelain enamel



on steel sink top. Equipped with faucet assembly; spray may be easily attached. Deluxe models of this unit includes five drawers, two compartments and spray. The cabinet sink is recent addition to Youngs-town kitchen line. Mullins Manufacturing Corp., Warren, Ohio. DECORATED PANELS **AB4930**

Celochrome and Lustertile, additions to Celotex line, are four foot wide tempered hardboard to which are fused hard, colorful, plastic finishes, giving the effect of ceramic wall surfaces. Used either to cover existing walls or in new construction. Three surface designs are Tile, Plain and Streamline. Five colors are peach, ivory, light green, light blue and white. Other colors available on special order. Surface of panels permanently integrated with hardboard base. Not affected by heat or cold. The Celotex Corp., 120 S. LaSalle St., Chicago 3, Ill.

WINTER AIR CONDITIONER Conco VU-I winter air conditioner requires 25x26-inch floor space. May be easily installed in alcove, half, closet, utility

room, recreation room, service porch,



kitchen or basement. Baffling keeps casing cool, permitting unit to be installed on wood floors. Moving parts enclosed. Oilfired with Conco stainless steel burner or vaporizing type. Conco Engineering Works, Mendota, III

ASPHALT TILE FLOORING Two new colors added to line of Hako factory-waxed asphalt tile flooring are "Coronation," a bright Chinese red marbleized with white, and "Morocco," a tan marbleized with white and black. Firm offers choice of 22 colors, four plain and 18 marbleized, with feature strip in five different colors. Hachmeister, Inc., 2332 Forbes St., Pittsburgh, Pa. REFRIGERATOR UNIT

'Lo Boy" refrigerator unit is 24 inches wide, 34 inches high and 24 inches deep. Firs neatly into area of two square feet. Capacity, five cubic feet. Can be fitted into standard kitchen appliance combination consisting of stove, sink and refrigerator



to form one continuous working surface. Removable formica top can be fitted on to unit to make usable kitchen table of approximately four square feet. Two aluminum ice trays provide 56 cubes at a time. Moss Atlas Corp., 244 Herkimer St., Brook-

SMALL AIR CONDITIONING UNIT

Ko-Z-Aire conditioning unit, with output capacity of 83,200 B.T.U., has a shipping weight of 250 pounds. Assembled and ready to install, it is 361/2 inches high, 23 inches wide, and 39 inches long. Blower assembly is surrounded by circular steel heat exchangers. Equipped with oversize filters. Automatically gas fired. AGA approved. Jones & Brown, Inc., 439 Sixth Ave., Pittsburgh 19, Pa.

LIGHT WEIGHT ROLLER AB4902 The Wayer Impactor is a 10-ton roller that weighs 230 pounds. For patching that weighs 230 pounds. pavement and laying new drives and floors In one minute one man can tamp and finish 60 to 80 square feet of bituminous surface or dry concrete base, working flush



to curbs, rails, manholes, buildings or fences. Requires no water. Impactor plate heated by engine exhaust. Travels under its own power when working. Powered by its own power when working. Powered by 2½-H.P. Wisconsin Model AB air cooled engine. Working speed on level ground is 35 to 42 F.P.M., depending on type of material and thickness of mat. Wayer material and thickness of mat. W Impactor, Inc., 12. North Third Columbus 15, Ohio.

(Continued to page 186)

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAMEADDRESS

CITYSTATE AB4901 AB4908 AB4915 AB4922 AB4929 **AB4936 AB4943** AB4902 **AB4909 AB4916 AB4923 AB4930 AB4937** AR4944 **AB4903 AB4910 AB4917 AB4924 AB4931 AB4938 AB4945**

AB4904 AB4911 AB4918 AB4925 **AB4932 AB4939 AB4946 AB4905 AB4912 AB4919 AB4926 AB4933 AB4940** AB4906 **AB4913 AB4920** AB4927 **AB4934 AB4941 AB4907 AB4914 AB4921 AB4928 AB4935 AB4942**

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder. 923 ride, Fits pacinto

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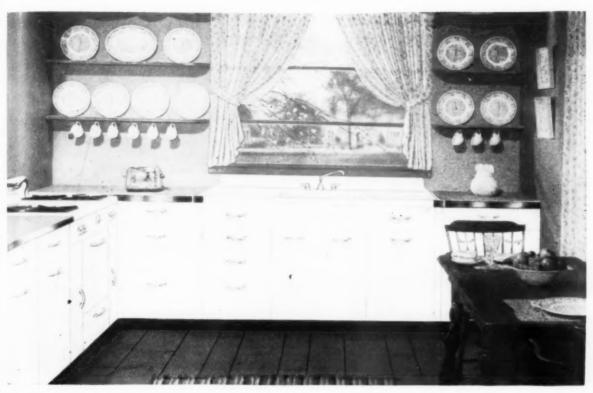
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Бу

ANY SIZE

kitchen



The Crane Sunnycrest Sink, single basin, double drainboard

... IS A CRANE SIZE KITCHEN

Crane sets no limitations on size or style. There is a Crane sink for the modest kitchenette as for the elegant living-kitchen—a truly complete line.

No doubt that it's the *preferred* line . . . home owners have testified to this year after year.

That's true, of course, of Crane bathrooms, too—and here again you'll find a style for every taste, a price for every budget. In home heating, Crane supplies everything required for any system, any fuel.

See Sweet's Builders' File for selections from the Crane line—and be sure to check your plans early with your Crane Branch or Crane Wholesaler.

THE ALL AMERICA — America's finest counter-top sink, 38" x21". Has all the features of Crane cabinet sinks—8" deep basins . . . retractable bose spray . . 4" bigb shelf back . . exclusive Crane Dialese controls.





THE KITCHEN QUEEN—and fit for a queen! Double basin, double drainboard, all gleaming white porcelain enamel, 72"x2534". Retractable bose spray. Crane supplies automatic dishwasher, disposal unit if desired.



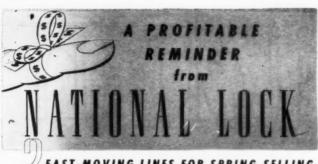
THE HOMEMAKER—just right for space-saving! Only 42"x25½", it boasts a deep, full basin and plenty of cabinet space below. Also from Crane: wall and base cabinets to complement the sink.

CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO 5

PLUMBING AND HEATING VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS





DISTINCTIVE HARDWARE ALL FROM SOURCE



Catalogs and HOW-TO-DO-IT INFORMATION

532-HOW TO MAKE GALVANIZED ROOFING AND SIDING LAST LONGER-is title of a new repair manual issue by the American Zinc Institute, Inc., 60 E. 42nd St., New York, N.Y. The 12-page manual contains an abundance of valuable illustrations, drawings and information.

533—"BETTER FARM BUILDINGS—with Insulux Glass Block" is the title of a new folder issued by the American Structural Products Co., Toledo 1, Ohio, Sizes of Insulux glass block, designs and installation information are given, as well as numerous illustrations.

534—SUSPENDED CEILING CONSTRUCTION -the Nailock method of installing ceilings with or without acoustical materials is discussed in Catalog No. 1 issued by the Nailock Steel Div., The Sanymetal Products Co., Inc., 1705 Urbana Rd., Cleveland 12, Ohio. Recent developments described include Zipper splice lock clip and the metal end lock strip. Specifications are included.

535 DECORATIVE INSULATING BOARD—A new brochure published by Johns-Manville, 22 East 40th St., New York 16, N.Y., describes ceiling panels, wall plank and building board. The text is profusely illustrated and provides information on sizes, application and special features of the products. Ideas for commercial and institutional as well as residential interiors are included.

536 "STORES MODERNIZE WITH MARBLE"-Pictures of attractive store fronts, floors and interiors are included in this booklet by the Marble Institute of America, 108 Foster Ave., Mount Vernon, N.Y. Also given are details about marble characteristics, selection, installation, and maintenance.

537 STEEL CEILINGS-A folder prepared by the Edwards Manufacturing Co., Cincinnati 2, Ohio, gives illustrations of modernistic steel ceilings, emphasizing unusual color effects obtained from patterns stamped from steel sheets painted.

538 HYDROCRANE MODEL H-3—This booklet, published by Bucyrus-Erie, 7923 W. Greenfield ave., Milwaukee, Wis., describes and illustrates the uses of the firm's truck-mounted, hydraulic crane-excavator, The manufacturer stresses the machine's unusual simplicity, based on the use of hydraulic power for every operation.

539 BATHROOM CABINETS—A detailed catalog by the Grote Manufacturing Co., Inc., Bellevue, Ky. A complete line of cabinets is included, as well as descriptions of methods used in production and the construction features of the finished products.

540 "HOW YOU CAN PROTECT . . . WITH COP-PER"-gives numerous illustrations of the uses of a copper-armored sheeting for the protection of buildings. The folder is published by the Sisalkraft Co., Chicago 6, Ill.

541 AIR CONDITIONING, HEATING AND RE-FRIGERATION-Equipment manufactured by the Chrysler Airtemp division of Chrysler Corp., Dayton

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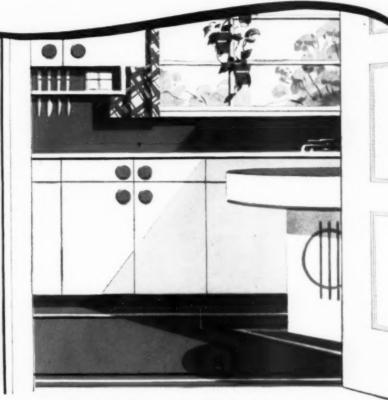
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**TOTAL SET THE STAGE

for better home design



You Can't Afford to Cut Quality... But You Can Cut Installation Time Up to 80%!

TRU-SIZED doors. Here is a product with a quality pedigree of 60 years—manufactured under an exacting system of laboratory control by craftsmen who know their trade. It's a first class door every inch of the way—guaranteed to fit and to look its best for many years to come.

NO SAWING, NO PLANING! TRU-SIZED doors are

precision machined to standard book opening sizes. You simply install hardware and hang. Even priming is eliminated for TRU-SIZED doors are resin coated before they leave the mill ... protected from scuffing and weathering and ready for staining, painting or waxing.

SPECIFY TRU-SIZED! It's your assurance of a quality door that will back up your reputation in the industry, save you time and money, too.



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Longacre 4-4520 State 2-5335-4-7 Valencia 4-2241 Logan 5-6245 NORGE HEAT

HEAT BEAT

Gas-Fired
WINTER AIR CONDITIONER

NORGE HEAT TOTAL

BORG-WARNER CORP.

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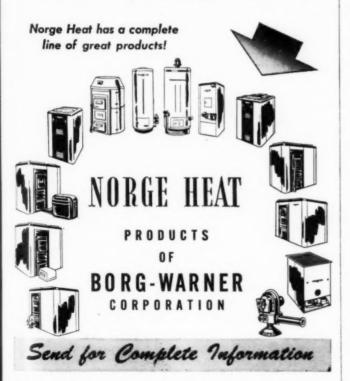
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NORGE HEAT Gas-Fired

WINTER AIR CONDITIONER

◆ Here at last is a highly styled finely engineered furnace specially designed to meet the specifications of today's architects and builders. Lowest installed cost... no service worries... nationally recognized name. Think of it! Fits between studding practically flush to the wall... only 12¼ inches deep, 32 inches wide, and 88 inches high... yet has 62,500 B. T. U. input capacity. Great flexibility... can be safely installed anywhere with little or no duct work... in wall, closet, utility room or basement. Complete factory tested package... built-in plenum chamber and draft diverter... 100% safety shut-off controls and automatic thermostat. Provides filtered summer ventilation. Fully approved by A. G. A. for natural, manufactured and L. P. gases. Nothing like it on the market.



NORGE	HEAT	Division,	672	E.	Woodbridge,	Detroit	26
							48 1

	rur i
NAME	
ADDRESS	

Catalogs

(Continued from page 172)

1, Ohio, is shown in this catalog, along with specifications and performance features. A wide range of products in all three of the above classifications are included.

542—ALI BABA AND HIS TWENTY THIEVES—

A cartoon style consumer booklet on fuel savings, which combines humor with helpful hints on how the home owner can stretch his fuel supply. It is a Chronotherm publication of the Minneapolis-Honeywell Regulator Co., Minneapolis 8, Minn.

543 — END-MATCHED LUMBER — Weyerhaeuser Sales Co., St. Paul 1, Minn., points out in an illustrated pamphlet the advantage of using end-matched lumber in general construction, stressing the saving of time and effort since joints are not required to break on joists, studs and rafters.

544—FLOOR SANDING, EDGING AND MAIN-TENANCE EQUIPMENT—An assembled catalog of the Clarke Sanding Machine Co., Muskegon, Mich., gives illustrated information about performance features of machines designed by the manufacturer for a variety of uses.

545—"LUX-RIGHT" AREA WALLS—Galvanized steel one-piece area walls for basement window wells are shown in a pamphlet issued by the St. Paul Corrugating Co., St. Paul 1, Minn. Intended for all types of buildings, the walls are described as adding beauty to the foundation line as well as affording more basement light.

546—CONVECTOR-RADIATOR—Four types of radiators in modern design are features of Folder 4048 of Young Radiator Co., Racine, Wis. Listed among the units' advantages are simplified installation, heat adjustment and cleaning; and space-saving.

547—BETTER PAINTING—is the title of a pamphlet issued by Archer-Daniels-Midland Co., Minneapolis, Minn., describing qualities of Pol-mer-ik linseed oil. The specially treated product is packed "raw" or "boiled" in sealed cans.

548—"METALMASTER" ELECTRICAL TOOLS— The Bradford Machine Tool Co., Cincinnati, Ohio, has published its Catalog 52 on electrical tools. Illustrations of a variety of drills, grinders, buffers and other tools include specifications and performance features.

549—METAL LATHS—are featured in a booklet by the Alabama Metal Lath Co., Inc., Box 992, Birmingham, Ala., with the theme, "No Plastering Can Be Better than the Lath Beneath It." Diagrams with specifications are given of metal lath, corner beads and lathing accessories.

550—"AMERICAN KITCHENS STYLED IN STEEL"—a publication of the American Central Division of Avco Manufacturing Co., Connersville, Ind., outlines the steps in installing different types of new kitchens, sketches the advantages of modern planning, and catalogs a number of the firm's sinks and cabinets.

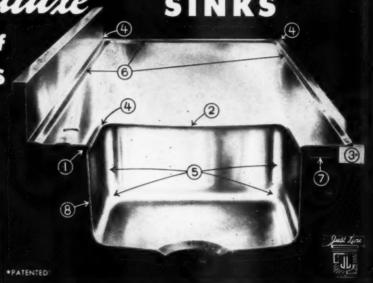
551—"FLOATING DOORS FOR YOUR MODERN HOME"—A "floating action" door which moves in and out of a pocket but has neither track at the floor nor hangers above is described in a pamphlet published by the Dorflo Manufacturing Corp., Hibbing, Minn. (Continued to page 176)



are FIRST CHOICE of Architects and Builders

- *Patented Anti-splash Rim around entire perimeter of the bowl at point where bowl joins the drainboards, seamless welded and polished.
- 2 *Patented Double Pitched Drainboards, gradually sloping lengthwise to the bowl and sidewise to center of drainboard.
- 3 Wood Frame around front and ends, facilitates fastening to the cabinets.
- 4 Seamless Construction, all joints welded and polished.
- 5 Radius corners in bowl-vertical radius 1½" at top tapering to 15/16" at bottom, all bottom horizontal radii are 15/16".
- 6 All corners of raised edge are die drawn.
- 7 U-type structural channel extending the full length of the drainboard.
- 8 Sound Deadened on the underside to prevent undesirable metallic sound.

Radiiluxe Sinks can be supplied in any size and shape and with either one, two, or more sink bowls—to meet individual requirements.



Write today for literature 8-4 and send us your specifications;
We will gladly submit details and estimates.



Catalogs

(Continued from page 175)

552—"LEIGH" PRODUCTS—manufactured by Air Control Products, Inc., are listed and illustrated in the Coopersville, Mich., firm's Catalog 47-L. Included are ornamental shutters, dust chutes, clothes chute doors, ventilators, built-in mail boxes and milk and package receivers.

553—"WINDOWALLS"—Specifications for complete wood window units are given in the Unit catalog 491 of the Andersen Corp., Bayport, Minn. Other descriptive literature includes photographic reproductions of actual Windowall installations.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department (April, 1949) American Builder, 105 W. Adams St., Chicago 3, III.

Please send me additional information on the following product items, or the catalogs, listed in this department:

Numbers

Name

Street

City State

OCCUPATION*

*Please note that occupation must be stated if full service is to be given.

554—"MODERNFOLD" DOORS—An improved type of folding wall which is adaptable to both large and small openings is featured in the catalog of New Castle Products, New Castle, Ind. Descriptive material and illustrations show the varied uses of the doors; and the catalog contains drawings explaining installation under different conditions.

555—ELECTRIC PLANTS—Catalog A-138A, recently published by D. W. Onan and Sons Inc., Minneapolis 5, Minn., includes a number of new models in covering the full line of the firm's plants. The catalog points out the difference between AC, DC and battery charging models and provides statistics on watts required by electric appliances and motors.

556—"THE PLUGMOLD STORY"—A booklet about a metal molding wired with electrical outlets spaced at regular intervals with optional frequency. Published by the Wiremold Co., Hartford 10, Conn., it illustrates use of the molding in various rooms and emphasizes provision for as many outlets as will ever be needed.

557—HARDBOARD WOOD PRODUCTS—Masonite Presdwood, a hardboard manufactured entirely from wood but without resins, oils and other wood characteristics, is the subject of a booklet by the Masonite Corp., 111 W. Washington St., Chicago 2, Ill. The booklet gives details and specifications of the product, which is described as being suitable for interior and exterior use in new construction or remodeling of residential, farm, or industrial buildings.

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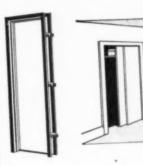
GALLANITE BUILDER'S STEEL



ZINC COATED — Galvanite is a special zinc coated product. The protective Galvanite coating is perfectly bonded with the quality Sharon strip steel that forms the base.

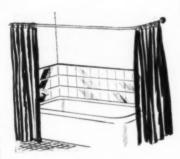


GALVANITE LIKES THE WEATH-ER TOUGH — Rain, snow — sleet and slush cannot penetrate the bonded zinc coating — and the strong steel base offers a lifetime of wear even under the hardest usage.

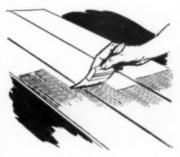


APPROVED BY LEADING CODES

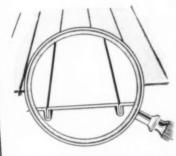
— Galvanite has been given the green light under the strictest of building codes. A recent test in an area plagued with oceanic salt spray proved Galvanite resistant to salt corrosion.



WHERE DAMPNESS PREVAILS —
Where water and dampness are an
every hour occasion Galvanite can't be
beat. And products made of Galvanite can be produced at lower costs —
because Galvanite — for all its advantages — is truly inexpensive.



IDEAL FOR PAINTING — Galvanite provides an ideal "mat" base for painting, and baked enameling. It withstands temperatures up to 750° without deteriorating,



SEVERE FORMING and DRAWING

— Galvanite will not peel, flake or
powder during difficult fabrication.

It is especially suitable where a coated
strip must withstand severe forming
and drawing.

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PRODUCTS OF SHARON STEEL CORPORATION AND SESSISIARIES: THE NRIES ROLLING MILL COMPANY, MILES, ONIO; DETROIT THE AND STEEL COMPANY, DETROIT, MICHIGAN; BRAIMARD STEEL COMPANY, WARREN, ONIO; SHARONSTEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRELL, PENNA.; CARPENTERTOWN COAS A COKE CO., MT. PLEASANT, PENNA.; FAIRMONT COKE WORKS, FAIRMONT, W. VA.; MORGANTOWN COKE WORKS, MORGANTOWN, W. VA. Het and Cold Relied Sheeks—Alley Strip Steel—High Carbon Strip Steel—Galvanite Special Capted Products—Cooperage Hoop—Electrical Steel Sheeks—Het Rolled Annealed and Dearlelling Order Sheeks—Alley Strip Steel—Alley Strip Steel—Alley Strip Steel—High Carbon Strip Steel—Galvanited Capted Sheeks—Galvanited Steel Strip—Steel Sheeks—Het Rolled Annealed and Dearlelling Order Sheeks—Wolded Tubing—Galvanited Capted Strip—Steel Strephing. Teels and Accessaries.

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Rachester, N. Y., Los Angeles, Calif., San Francisco, Calif., St. Louis, Ma., Montrael, Que., Taronto, Ont.

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It's easier to sell Lo-"K" because it's geared to the times. Lo-"K" has an amazingly high efficiency factor that pays off handsomely in fuel savings and year 'round comfort-yet it costs less than most insulations. It's among the lightest insulations made—it installs easily at low cost-it repels moisture and insectsstays fluffy after installation (never packs or settles) - lasts a lifetime.

Lo-"K" comes in easy-to-apply rolls of standard widths-is non-irritating to the skin-requires only one third the trucking and warehouse space.

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SYMONS FORMING SYSTEM



"Seven men set-up the forms for a 26' x 27' basement in one hour and fifteen minutes."—Harry G. Dehring, Carpenter Foreman, Taylor Brothers, South Bend, Indiana.



'We have used these forms 60 times without appreciable wear. We ex-pect to get at least 60 more reuses.''
—Homer L. Short, Supt. Reed Con-struction Company, Mishawaka,

SAVES TIME

There are only three essential pieces of hardware... bolt, wedge and form tie. The tie remains in the concrete... bolt and wedge are used again and again.

quick shipment from ten

Bolt holds forms together and also holds tie both ways. No nails or spreaders are

usea.

To remove forms, tap out wedges, remove bolts, then easily pull forms up or out without tools. The ties will break back inside the wall, 1" from the surface by twisting loop

SAVES LABOR

The Symons System speeds erection and stripping of forms. Formina labor is cut 50%.

SAVES COSTS

With Time and Labor cut in two . . . Plus savings in nails, spreaders, waters and bracing . . . Plus far greater walers and bracing . . . Plus far greater reuse of forms . . . Costs drop to new law.

Symons Forms can be rented with pur-chase option or you may purchase the hard-ware with free blueprints to make your own forms.

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Readily available!

CHASE COPPER TUBE FOR SOIL, WASTE AND VENT LINES!





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Many of the nation's leading builders of low-cost and high-cost homes use Chase Copper Tube. View shows trim, compact features of a typical copper tube waste and vent line installation.

Fast... economical installation has made Chase Copper Tube for soil, waste and vent lines a favorite with builders coast-to-coast! Here's why: You reduce many connections because Chase tube is available in 20 foot lengths. Its light weight makes pre-cutting and pre-assembly possible...makes maneuvering and handling quicker!

Find out more about the quality features... the economy features—the availability—of Chase Copper Tube for soil, waste and vent lines. Send for literature. Write Depta AB49.

FREE! Booklet illustrating actual installations of Chase Copper Tube in homes across the country.



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the Nation's Headquarters for BRASS & COPPER

SUBSIDIARY OF KENNECOTT COPPER CORPORATION

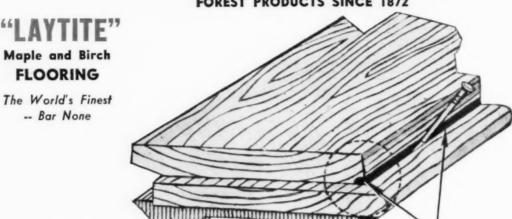
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ALBANY+ ATLANTA BALTIMORE BOSTON CHICAGO CINCINNATI CLEVELAND DETROIT HOUSTON; INDIANAPOLIS KANSAS CITY, MO. LOS ANGELES MILWAUKEE MINNEAPOLIS MEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER; SAN FRANCISCO SEATTLE ST. LOUIS WATERBURY (Hadisane Sales Office Only)

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Behind The Mills-The Connor Timber Stands

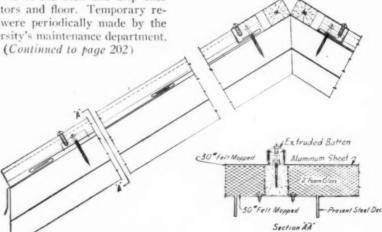
Aluminum Solves Roofing Problem

UNIVERSITY of Minnesota's mammoth Field House, one of the country's largest and most completely equipped gymnasiums, has a new roof. Designed, fabricated and installed by the Overly Manufacturing Company, Greensburg, Pa., last year, the new roof for the 22-year-old structure involved the use of 85,000 pounds of aluminum for extruded battens, pre-formed sheet panels, wood screws, nails and accessories.

Located adjacent to Memorial Stadium on the campus of the University in Minneapolis, the building measures 444 feet long by 236 feet wide by 100 feet high at its crest. It has a seating capacity of 20,000 and is the scene of the University's track, basketball and boxing program. Design of the immense hall permits simultaneous playing of two or more basketball games.

Almost continuous use of the building since 1927 has required a careful maintenance check by school authorities. High humidities generated by capacity audiences at sporting events frequently caused vapor clouds to form beneath the structure's arched

roof. Original insulation on the building's steel roof deck gradually deteriorated and no longer supported the built up roofing properly, resulting in numerous leaks. Loss of insulation also caused vapor to condense on the underside of the deck and drip onto spectators and floor. Temporary repairs were periodically made by the University's maintenance department,



NAILING GROOVE

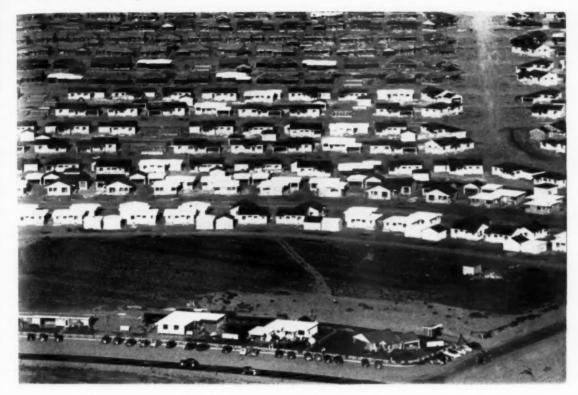
APPLICATION of new aluminum roof over present steel deck of University of Minnesota fieldhouse.—Foamglass insulation, placed between treated wood nailers, with impregnated felt mopped on top and bottom of insulation, provides the necessary vapor barrier. Applied aluminum sheets are rendered weathertight by cross seams and extruded battens.

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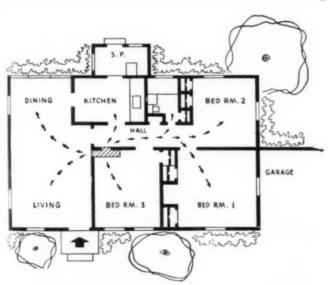
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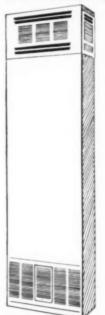
WORLD'S LARGEST RESIDENTIAL DEVELOPMENT USES NEW TYPE HEATING

When Fritz Burns, President of Kaiser Homes, developed his first post-war home, the Royal Jet-Flow was just coming off the production lines. It was tested and found to give heating performance equaled only by forced air units costing three times as much. Since that time over 6000 Jet-Flow heating

units have been installed in Kaiser Homes alone. With its fine performance, its minimum upkeep, and high owner satisfaction it was natural that the new model Jet-Flow was selected for the 2000 1949 Model Kaiser Homes (illustrated above) now being built in Panorama City, California.



The gas-fired unit is placed near the center of the floor plan, and distributes heat in three directions from registers located 6" below ceiling level. Through the use of the jet principle heat is circulated at a velocity of 300 feet per minute to all parts of the house. Test showed a room-to-room temperature differential of less than 2°.



Walter Wurdeman and Welton Becket, Collaborating Architects

Royal Heaters, Inc., Manufacturer 1024 Westminster Ave., Alhambra, Calif.

We suggest you write for literature and specifications. Royal Jet-Flow is distributed nationally.

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the 100% concealed sash balance

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The housewife is always pleased when she discovers how easily — how effortlessly her windows glide up and down with Hidalift sash balances. She is even happier to see that there are no sharp edges for her curtains to catch on — no unsightly parts of balances showing to mar the beauty of her windows. Hidalift will please you, too. Its many superior mechanical features plus fast, easy installation are worth investigating. On your next job, install Hidalift, the smoothacting 100% concealed sash balance . . . and you'll see what we mean.

WRITE FOR our illustrated folder which includes all installation details and lists sizes and specifications on Hidalift for all standard sash. Use coupon below or your own letterhead.

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They are made with laboratory precision from hand picked, kiln burned rock quarried at the heart of the world's purest deposit of dolomitic limestone, and make a pure white, easy and cool working, far spreading putty.

OHIO WHITE and **HAWK SPREAD** are Ohio Hydrate's identical brands of hydrated finishing lime. They are always uniformly right, 99½ % pure.

OHIO WHITE AUTOCLAVED Finishing Lime is equally good quality. It needs no soaking. For fine white coat plaster, brick mortar and other uses.

OHIO SANLIME FINISH, a plaster for sand finish interior work, contains all ingredients in dry-mixed form. In white and in colors: ivory, buff, pink, blue, and light green.

The Zigzag Bags are your assurance of quality.



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This modern insulated DRY WALL CONSTRUCTION

meets FHA Vapor-Barrier Requirements
(Class A, Federal Specifications UU-P-147)

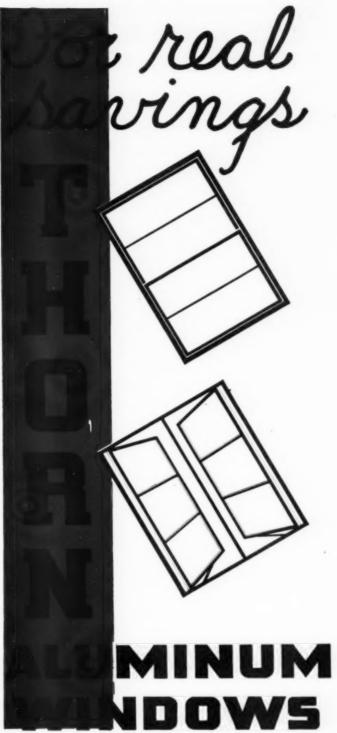
This new insulated DRY WALL construction (SISALATION plus SISALKRAFT) combines insulation and vapor-barrier advantages at very low cost . . . helps stop passage of harmful moisture into walls! SISALATION, bowed in between studs, provides TWO insulating air spaces, and its reflective surface helps keep homes warmer in winter, cooler in summer. Heavily reinforced by crosslaid sisal fibres, tough and strong, SISALATION and SISALKRAFT remain in place, permanently and effectively, for the life of the building. Here is quality construction with true economy!

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Modern	DRY WALL	CONSTRUCTION

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These fine windows are really economical, even for the most modest low cost homes.

Features that save expensive field labor are built in at the factory by precision high production methods—and

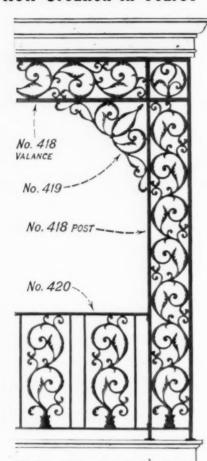
You never need to paint aluminum.

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ORNAMENTAL IRON

Here Is the First New Creation in Years!



Coffman Cast Design for '49 "New Orleans Style"

This original Coffman creation brings all the charm of Old New Orleans to add extra beauty to your home. And it is so simple to install! Coffman cast ornamental iron is available in posts, panels, brackets, rails and valances for easy application. Whether for porch, balcony, or simple entrance stoop, there are Coffman designs to fit the needs of home owners, builders, architects. Standard sizes and stock designs allow accurate cost estimating, fast installation.

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You buy with assurance when you buy Coffman Porch
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Manufacturers of the Original "Complete Builders Line" of Hand-Wrought Ornamental Iron

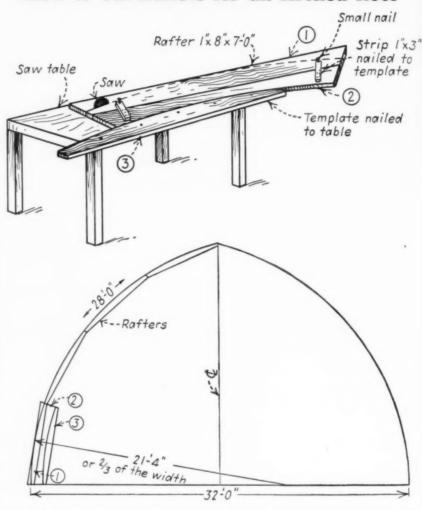
The R. J. Coffman Co. Inc. ORLANDO, SIORIDA



TECHNICAL GUIDE for Builders and Craftsmen

(Continued from page 163)

How to Cut Rafters for an Arched Roof



Template Assures Perfect Joining of Stair Rail

A SUGGESTION for use in bolting stair rails to goose necks or volutes. Saw off in



mitre-box a piece of hand rail ½ inch thick. Drill a small hole in the center (as shown in illustration) and use this for template on both pieces to be bolted.—John Menkveld, Grand Rapids, Mich.

TO CUT rafters for an arched roof barn 32 feet wide and 150 feet long with a 28 foot arc, first set up a jig, then secure jig to saw table, see top drawing. This jig or template will enable you to make an arched roof without the use of a pencil. Top drawing indicates position of wood template. Template is formed of two separate pieces of wood. One piece is secured to saw table, the other secured by temporary cleats to board to be cut. The board is then placed over circular saw and moved along line of template, cutting out rafter of the desired radius. The length of each rafter is seven feet. This process is repeated and the rafters when assembled on ground are doubled or tripled to take the load that will be superimposed on finished roof.-Joseph J. Waldner, Jr., Plum Coulee, Manitoba, POSTV

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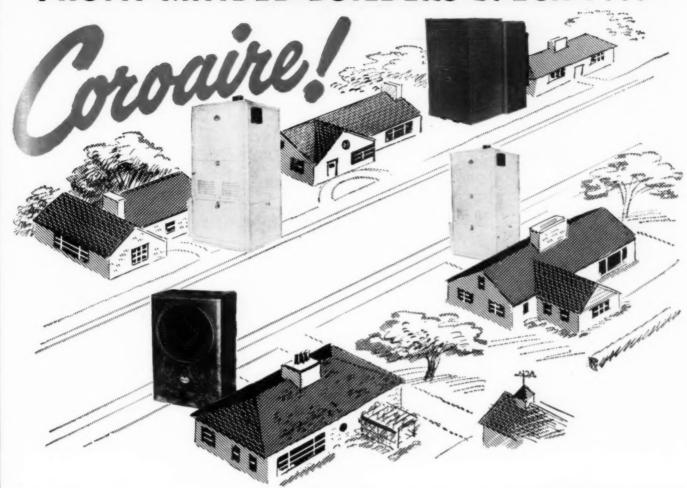
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PROFIT-MINDED BUILDERS SPECIFY.



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REVOLUTIONARY PATENTED VENTURI TUBE

SPECTACULAR OPERATING ECONOMY

UNUSUAL HOME OWNER AND TENANT SATISFACTION

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FACTORY ASSEMBLED -**ECONOMICAL INSTALLATION**

CAST IRON HEAT EXCHANGER

PRICED FOR NEW CONSTRUCTION MARKET

RECOMMENDED BY NATIONALLY-KNOWN BUILDERS AND HEATING AUTHORITIES

Tens of thousands of Coroaire winter air conditioning units have been installed since the war. These units offer positive proof of greater efficiency and lower operating costs because of exclusive patented features. In four years, Coroaire has secured leadership of the industry.

The Coroaire Console is engineered and designed to completely and automatically winter air condition average-size, one-floor, basementless homes and individual apartment suites-WITHOUT THE USE OF DUCTS. Installation at minimum cost-means more profit for you. LESS MONEY WHEN YOU BUY-LESS MONEY TO INSTALL.

The Coroaire Hi-Boy winter air conditioning furnace, outstanding in efficiency and design, is factory assembled with all Coroaire exclusive patented features - complete with controls and safety equipment. For basement, utility and closet installations in connection with a duct system, build Coroaire profit into your profit plans.

WRITE TODAY: For complete information on Coroaire advantages for builders. Address inquiries to:

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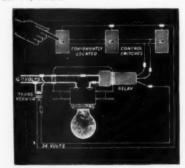
THE COROAIRE HEATER CORPORATION 1422 Euclid Avenue Cleveland 15. Ohio



America

(Continued from page 170)

LOW VOLTAGE CONTROL Square D low voltage control system pro vides adequate switching of lighting and appliance circuits with great convenience, safety and comfort. Small remote control relays handle load, and are installed knockout of nearest outlet box. Individual relays controlled by any number of switches operating on 24 volt system. One relay operated from any number of control switches located at several convenient points, or several relays operated from one point. Square D Co., 6060 Rivard St., Detroit II, Mich.

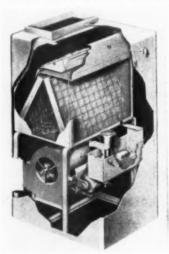


STEEL SCAFFOLDS

AB4925 Gold Medal Tubelox Steel Rolling scaffolds incorporate four basic parts—inter-locking steel tubes of various lengths, two types of couplers, and heavy-duty 6-inch brake casters. Entire scaffold may be rolled as job progresses. Brakes on casters hold scaffold firmly in place during work. Scaffold height and height of working levels are adjustable to clear obstructions. The Patent Scaffolding Co., Inc., 38-21-12th St., Long Island City, New York, N. Y.

AIR TREATING UNIT **AB4936** Self-contained, air treating unit for the home, cleans, freshens, humidifies and conhumidity of air passing ne unit, "TEG" Conditioner, through it. The unit, vaporizes triethylene glycol into its air-

stream to destroy airborne bacteria. Motor-



driven blower draws air through unit over permanent glass fiber filter-cell. Enclosed in French gray baked enamel jacket that has crinkle finish. Operates with warm air heating, steam or hot water heating system. May be used as air cooling device in summer. Conditioner is 561/4 inches high, 26 inches wide and 35 inches deep. Weight, 400 pounds. National Air Conditioning Inc., Johnstown, Pa.

(Continued to page 188)





VENTILATION

Put ILG Night Cooling Fans in the attics of the homes you build . . . then watch prospects "go for" your houses. When they learn that inside temperature can be dropped as much as 20° on hot summer nights . . . when they hear how quietly the fan operates . . . when they see downstairs curtains fluttering in the breeze drawn in by the fan . . . sales resistance will crumble. Get the complete story—send coupon or phone nearby Branch Office (consult classified directory).

ILG ELECTRIC VENTILATING COMPANY, 2852 N. Crawford Ave.

Chicago 41, III. Offices in more than 40 Principal Cities

☐ Send latest data and prices on ILG Night Cooling Fans, also Kitchen Ventilators

Firm Name	
Individual	.Title
Address	7one



nd



Architect: Sewall Smith, Lafayette, California

More SUNSHINE GROWS Buyers

You're sowing the seeds of quicker sales when you include larger windows... and more of them... in the homes you build. Prospects aren't snapping up anything with a roof on it any more. They're beginning to pick and choose...look for the features they want. And they do want more and bigger windows. You can give them what they desire so easily...glass costs so little and adds so much to any house.

Be sure you select glass that is clear and

undistorted...the finest available. That kind of glass is L·O·F Quality Window Glass...manufactured by methods you can rely on for better vision and less internal stress and strain.

The familiar L·O·F label on your windows acts as a silent salesman for you, too. It is a recognized emblem of quality and quickly assures your prospects that you use only top-grade materials. Libbey · Owens · Ford Glass Company, 4349 Nicholas Building, Toledo 3, Ohio.



L.O.F also makes polished plate glass, safety glass, colorful Vitrolite* glass facing, Tuf-flex* tempered plate glass and other flat glasses. Only Libbey Owens Ford makes Thermopane*—the first mass-produced insulating windowpane.



LIBBEY · OWENS · FORD

a Great Name in GLASS

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NEW WAY TO VE MONEY.

The new KRESKY OIL WALL FURNACE





A cost-cutting achievement to meet your modern needs by Kresky, the most famous name in oil heating since 1910.



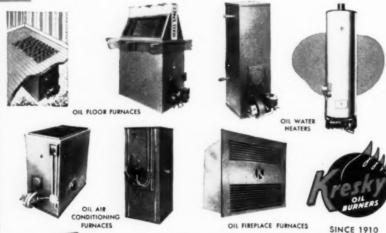
HERE ARE THE FACTS

You can install a Kresky Oil Wall Furnace and get the advantages of a central heating plant of high capacity -62,500 BTU per hour, fully automatic or manually controlled.



You Check the Savings

- Low first cost
 - No basement required
- More floor space as furnace is installed in wall
 - No duct work, registers or radiators, and yet you have a heating system that will heat all or part of the house
 - You save on installation. Furnace and flue can be installed in a few hours as a package
 - You get the savings of the famous Kresky Patented Forced Air Induction Oil Burner





GET FULL DETAILS:

Just mail in this coupon for full details on the new Kresky Oil Wall Furnace Other Kresky products

KRESKY MANUFACTURING CO., INC. 601 Second Street, Petaluma, Calif.

Name_ Address_

City____ ____State__

NEW PRODUCTS

(Continued from page 186)

ELECTRIC PAVING BREAKER AB4903

Homelite paving breaker operates on electricity supplied by 129-pound dual-voltage gasoline-engine-driven generator which can be used for operating other types of high-cycle tools as well as standard 110-



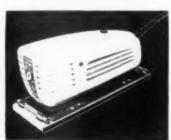
volt tools and floodlights. Breaker and generator make compact combination that can fit in trunk of car and can be put into operation quickly by one man. Breaker is unaffected by dust or abrasive particles. Motor has no brushes or commutator. The Homelite Corp., Port Chester, N. Y.

MITRE CUTTERS

Markwell bench Model No. 2 mitre cutter is made of all metal. Entire top plate is of /8-inch steel. Tool steel, adjustable blades. Capacity, 134x34 inches. Cuts up to 23%-inch widths. Foot operated Markwell No. 8 is equipped with gauge stops. Markwell Industrial Products Div., New York

PORTABLE ELECTRIC SANDER AB4931

The "Century" portable electric weighs 43/4 pounds. Non-stalling high speed motor incased in streamlined die-cast aluminum alloy housing. Compact, easy to handle, this Model 1000 Sterling operates on



orbital motion. Unit is four inches high. Can sand up to corners and trim or under low obstacles without risk of damage. Standard size abrasive sheets cut in thirds are used, and as many as four or five sheets can be loaded on the pad at one time. Sterling Tool Products Co., 1340 N. Mil-waukee Ave., Chicago 22, III.

STAPLE TACKER

Bostitch Model T-5, trigger-action tacker for driving staples into wood and other materials, is adapted to work in restricted places where there is not room enough to swing a hammer. Places and drives staple without danger of marring material. Drives within 1/16-inch of inside corners, rabbets, or moldings. Weighs three pounds. Bostitch, 639 Mechanic St., Westerly, R. I.

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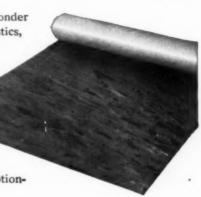
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The floor news of a lifetime!

Beautiful FLOR-EVER, the new, resilient, wonder floor covering made of Vinylite Brand Plastics, is the only floor covering that offers home builders such revolutionary features for more wear and less care! Stays cleaner longer—it's spot-, stain- and alkaliresistant, grease- and water-proof. Quiet and resilient to the step, FLOR-EVER comes in a galaxy of clearer, brighter colors that go right through to the backing—complement all decors. Available by the yard, it is exceptionally easy and inexpensive to install!



FLOR-EVER is being nationally advertised in Better Homes and Gardens, American Home, House Beautiful, House and Garden, McCall's AND Good Housekeeping. Why not capitalize on FLOR-EVER's advantages in the homes you are building!



DELAWARE FLOOR PRODUCTS, INC., WILMINGTON 99, DELAWARE

New York Showrooms: 295 Fifth Avenue
Also manufacturers of "Wall-Ever" Vinylite Plastic Wall Covering and "Duralin" Enamel Floor Covering.

America

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Cabinet Value FOR ALL TYPES OF DWELLINGS

The outstanding value of Kitchen Maid Cabinets is emphasized by their frequent selection for private housing developments. Architects and builders everywhere are recognizing the many important advantages of

factory finished hardwood cabinets, soundly constructed and pleasingly styled. Buyers appreciate too, the warmth and friendliness that only Wood Cabinets provide.

DISTINCTIVE FEATURES

In addition to these basic advantages, Kitchen Maid offers many distinctive features: modern Flo-Line styling, composite construction, quiet, non-chipping aluminum drawers, resinite doors with cushioned action, solid, permanent shelves, many work-saving accessories.

Your Kitchen Maid representative will be glad to work with you on any kitchen problem. Call him soon. In the meantime write for valuable planning guide "Kitchen Hints", free to architects and builders.



Inserts for bread, sugar, flour, etc., add to utility of aluminum drawers.



Ventilated, bright metal, sliding



THE KITCHEN MAID CORPORATION
594 Snowden Street, Andrews, Ind.

Please send new booklet containing 10 practical kitchens with floor plans and details. I am an

Architect

Builder

Dealer.

Name
Street
City State

NEW PRODUCTS

(Continued from page 188)

PRE-CUT PLYWOOD DOORS AB4932
General Flush Doors of stress-skin construction are pre-cut to exact standard sizes, but allow for trimming. Simple to install, easy to handle. Core consists of treated rigid cylinders three inches in diameter, spaced in staggered pattern, giving uniform support to door faces throughout. Select poplar rails, 31/4-inches wide and stiles 11/2-inches wide are joined together with dowel construction. Width of rails sufficient to permit cutting down two inches in height. Faces of three-ply Southern Hardwood gum plywood. General Plywood Corp., Louisville 2, Ky.

WALL HEATER

"Dual 25" wall heater, 25,000 B.T.U. input, is adaptable to natural, manufactured or liquefied petroleum gas. Rough-in dimensions are 14x501/2 inches. Fits in standard four-inch wall with studs of 16-inch centers.



Offers vented operation, coupled with circulating-type heat. Heater mounts off floor; provides return air inlet in hidden duct under wall panel which draws cool air off the floor. Heating element enclosed behind wall panel which always remains safely cool. Holly Manufacturing Co., 875 S. Arroyo Parkway, Pasadena 2, Calif.

GAS AND OIL FURNACES AB4920 Mor-Sun pressed steel forced warm air furnaces are assembled at factory and shipped as package units. Sizes up to 175,-000 B.T.U. If tight basement entrance is



encountered, casing sides can be quickly removed, leaving narrow assembly that can be handled easily. Heat exchangers are of 12-gauge steel. Morrison Steel Products, Inc., Buffalo 7, N. Y.

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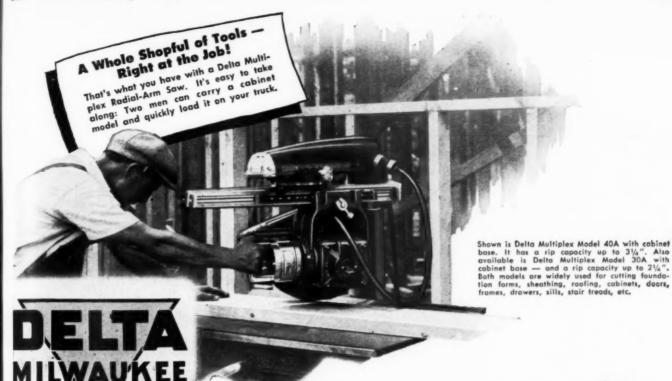
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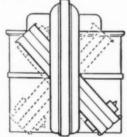
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You get more capacity with a DELTA® Multiplex Radial-Arm Saw

The Old, Conventional Principle This shows how conventional radial-arm saws pivot from the column. They have practically no mitering capacity at 45°, not much usable capacity at 30°, and almost none beyond 45° on left-hand miters.



The Modern Delta Multiplex Principle

This shows how center-pivoted saw arm permits Delta Multiplex to be set quickly to cut any miter — right-er left-hand — at full capacity up to 90°. The saw rotates through 360°. Permits unlimited number of saw positions, greater capacity and ease of operation. Cutting arm rotates 360°. You can put it at any angle — and get 100% mitering capacity

You cut job time and costs, with a Delta Multiplex - because it's quick and easy to make almost any cut you want. The patented "Versatile Elbow" sees to that. It's a centerpivoted track that carries the cutting head and lets you put the blade in any position.

There is no lost travel of the cutting head on the track. With a Delta Multiplex, you cut the full length of the sliding arm on both right-hand—and left-hand—miters from 0° to 90°! The blade moves through practically the center of the table. Your work rests on the full table and you get full-capacity cuts.

Your nearby Delta distributor has Multiplex models on his sales-floor now. Inspect them here. See for yourself the Delta Multiplex features that assure you of safety, speed, convenience, capacity, and economy. And ask about buying the Delta Multiplex on easy credit terms.

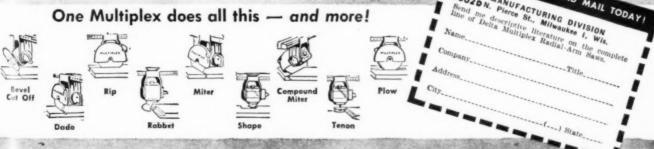
Look for the name of your Delta dis-tributor under "Tools" in the classified section of your telephone directory.

Send coupon for descriptive literature on Delta Multiplex Radial-Arm Saws having rip capacities up to 6".

DELTA MANUFACTURING DIVISION ROCKWELL MANUFACTURING COMPANY MILWAUKEE 1, WISCONSIN

Model 20A - for





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MCKINNEY

MANUFACTURING COMPANY

PITTSBURGH 12. PENNSYLVANIA





NEW PRODUCTS

(Continued from page 190)

FEATHERWEIGHT CAULKING GUNS AB4921

Vital caulking guns in seven sizes range from one pint to 21/2 quarts capacity. Made of steel, bronze and aluminum. Finished in hard gunmetal, or cadmium plate on special order. All models except A-1, B and C are supplied with standard No. 12, %-inch oval nozzles. Model A-1 supplied with



No. 16 nozzle; B and C with No. 5. All nozzles are interchangeable with Vital Caulk-Stop nozzle which incorporates %-inch stop-cock. All guns, except Model A, are equipped with finger-form trigger and contour handle. Vital Products Manufacturing Co., 7500 Quincy Ave., Cleveland 4, Ohio.

ELECTRIC ADDING MACHINE AB4913

Model 93100-5 Electric adding machine embodies cushioned construction for quiet operation, streamlined keyboard for fast action, and new type value gauge for figure



evaluation. Incorporates lengthened addtotal and correction bars and electrified sub-total, non-add, repeat and direct subtraction keys. Available with 5-inch stationary carriage and 13-inch movable carriage. Remington Rand, Inc., 315 Fourth Ave., New York 10, N. Y.

SMALL CONTACT SWITCH AB4906
Sedgwick "CBN" contact switch. Used in operation of lights, buzzers, alarms, signals, indicators or other applications requiring contact making or breaking devices of small dimensions. Simple design, rugged



in operation, it is made as single pole double throw, slow make and break, for use on either AC or DC, at maximum voltage of 250. Current rating is two amperes AC; one ampere, DC. Contacts are silver to silver. Entire contact assembly readily removable as a unit. Sedgwick Machine Works, 80 Eighth Ave., New York, N. Y.

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NS 4921 Made ed in spe-

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B4906 Ised in s, sigdevices rugged

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American Builder, April 1949.

Designed, Built and Priced for the Modern Small Home

Here is a compact boiler-burner unit designed and built specifically to heat the modern 4 to 5 room home economically and to supply domestic hot water to meet FHA requirements, with quick recovery, on a year around basis, at low cost.

Only 45 in. high, the Bantam occupies only 20 x 33 inches floor space. Clean, attractive, quiet, it requires no separate room - cuts building costs as well as heating costs. Ratings: 100,000 BTU per hour; 440 sq. ft. hot water standing radiation; 285 sq. ft. steam standing radiation. Recommended firing rate: 0.75 GPH.



"A Quality PACKAGE DEAL" Crated, Fully Erected for Quick, Easy Installation and Cleaner, Faster Profits

Buyer and seller both make a good deal on the Bantam. It's a factory-planned package, with fair price based on high quality construction and volume production.

Boiler is vertical steel fire-tube type, designed for hot water or steam heating or hot water supply. Main boiler shell is heavy welded steel with 2 in. insulation blanket and an outer dress shell of Hammerloid-finished steel. Features include quick recovery, quiet operation, low stack temperature, completely submerged fire tubes, spiral turbulator, and easily replaced combustion chamber.

Supplied as a "package" complete with Aldrich Burner, with or without optional equipment-wiring, circulator, valves, draft stabilizer, manifold, special controls.

It's the easiest boiler-burner to buy . . . to sell . . . to install . . . and the most economical heating source for a modern 4 to 5 room home!



Aldrich CX Oil Burner

Firing Range 0.75 to 2.00 GPH

Designed especially for the Bantam Boiler-Burner, the Aldrich CX with Aldrich-built motor and transformer makes an ideal replacement burner for other small heating plants. Available with either flange or base mounting. Quiet. No radio interference. Other Aldrich burners have capacities to 19 GPH. Write for specifications.

- Get the Facts About Aldrich FIRST!

ALDRICH COMPANY, 111 Williams Street, Wyoming, Illinois

A SUBSIDIARY OF BREEZE CORPORATIONS, INC.

ONE OF THE



PRODUCTS

Write, wire, or telephone for de-tails about the Bantam and 6 larger Aldrich Boiler-Burner Units for steam heating, hot water heating, and hot water supply. Units 118,000 to 808,000 BTU an hour have identical ratings with interchangeable oil and gas burners.

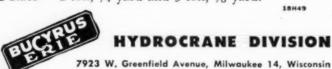


BY USING a Bucyrus-Erie Hydrocrane, Vander Heyden, Inc., Milwaukee, Wis., building contractors, erected 4000 sq. ft. of their prefabricated DOX BLOCKS concrete planking in 8 hours. On average jobs they place from 2000 to 3000 sq. ft. per day, mostly floors and ceilings for housing and commercial building.

Because of the mobility of the truck-mounted Hydrocrane, it handles jobs no ordinary crane can touch. On a recent Vander Heyden job, the Hydrocrane traveled to a point 225 miles from Milwaukee, erected 4600 sq. ft. of concrete plank and returned to Milwaukee — all in two days.

Every Hydrocrane function is fully hydraulic. Power is furnished by the truck engine to a dependable hydraulic system. Simple control, hand action — no foot levers.

2 Sizes — 2-ton, 1/4 yard and 3-ton, 3/8 yard.



mail	BUCYRUS-ERIE HYDROCRANE DIV 7923 West Greenfield Avenue, Milwa	
.11.	I want the full story on the Hy	drocrane
thes	Name	
coupon	Company or Dept	
comp	Address	
today	City	State

NEW PRODUCTS

(Continued from page 192)

GLASS BLOCK VENTILATOR AB4912
Westeco Blokvent, louver Type 3L glass
block ventilator, of cast aluminum, features a removable louver and screen.
Held in place by interlocking arrangement
and one screw louver and screen are



removable for cleaning from interior of room. Easily cleaned with damp cloth. Each unit takes the place of one glass block. Provides adjustable, insect-proof ventilation for bathroom windows, shower rooms, and other rooms in the home or office. Westwood Engineering Co., 3118 W. Lake St., Chicago 12, III.

BLUEPRINT CABINET AB491

Cole blueprint cabinet, of heavy gauge furniture steel, features smooth gliding drawers on ballbearing rollers. Equipped with lift compressor in front of drawer and hood in the rear to prevent material filed from curling, creasing or tearing. Available in olive green or Cole gray crinkle finish. Two sizes, one with inside drawer dimensions, 37 inches wide, 25 inches deep and 2½ inches high; the other, 43 inches wide, 32 inches deep and 2½ inches deep and 2½ inches deep and 2½ inches high. Cole Steel Equipment Co., Inc., 285 Madison Ave., New York 17, N. Y.

ALL-PURPOSE SAW AB4939

Guild A-6 all-purpose saw is recommended for general carpentry, building and contracting, maintenance, crating, floor installation and repair, cabinet work and home use. Featuring perfect balance, the saw has 6/4-inch diameter blade with



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5%-inch standard round hole. Depth adjustment can be regulated for depths from 1/8-inch to two inches. Trigger switch located in handle. Turbine fan draws air through motor and discharges it at front, blowing dust off line of work. Motor, 115 volt AC/DC. Speed (Idle) 5.500 r.p.m. Length. 10 inches; width, 81/8-inches. The Porter-Cable Machine Co., Syracuse 8, N.Y.

(Continued to page 196)

The PROFESSIONAL BUILDERS' BULLETIN

An "Idea Department" from the Engineers of Ingersoll



INGERSOLL LEADS WAY TO LOWER PRICES!





Expanded Distribution, Increased Volume Result in Revised Price Schedule

Continuing its rapid expansion in the small-home utility field, the Ingersoll Utility Unit Division of the Borg-Warner Corporation this month announces a new and lower price schedule for the Ingersoll Utility Unit and the Ingersoll Panel Core. Price reductions follow acceptance of the "Ingersoll Idea" by more than 150 of the nation's largest plumbing and heating wholesale outlets in the last six months alone, with corresponding increase in sales volume.

Now the Ingersoll Utility Units are more advantageous than ever for professional builders who already had shown enthusiastic acceptance of the Ingersoll "one purchase—one installation" idea. The Ingersoll line is more complete

and more flexible with the addition of two new furnaces, kitchen cabinets and work tops. Eight stack, vent and underground combinations enable the Ingersoll Units to meet 98 per cent of all building codes. This gives small home designers the widest latitude in individualized planning. It also results in the economies, convenience and simplicity of securing all components from a single, reliable source.

Assembled exclusively by A. F. of L. journeymen plumbers, Ingersoll Utility Units open up a wide new field for builders and architects eager to benefit from the small-home building boom anticipated under proposed new federal government legislation.

NEW CABINET LINE ADDS VERSATILITY TO KITCHEN PLANS

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Individually-tailored kitchens are made more feasible than ever by the complete new line of Ingersoll steel kitchen cabinets. They harmonize in quality and design with other Ingersoll Utility Unit components. Line includes a wide variety of attractive under-sink and wall cabinets, with linoleum or plastic work tops.

Kitchen cabinets, in any combination, can be ordered along with basic Utility Unit, for arrangement as space available and architect's ideas indicate.



New Ductless Heating With Ingersoll "88"

Economical ductless heating in mild winter areas has been solved in a new way by the introduction of the Ingersoll "88" gas-fired utility furnace. Also ideal for multiple installations in ranch-type houses

in any climate.

Ingersoll "88's" with 50,000 B.T.U. capacity occupy only 3 sq. feet of floor space. They can be used three ways—as space-heaters, mounted flush in walls or in closets, or with plenum chambers and short ducts where several rooms are to be heated by one furnace. Approved by the A. G. A.



One letter gets you the catalogue—free of course—plusthe current issue of the Ingersoll "House Plan of the Month" which offers suggestions for interesting small-home designs and features.



Write today to:

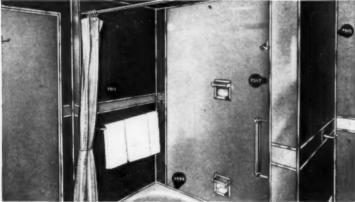
INGERSOLL UTILITY UNIT DIVISION

Borg-Warner Corporation Dept. B4, 321 Plymouth Court Chicago 4, Illinois THIS JOB SURE CALLS FOR

METAL MOULDINGS

"In the building business we face this one every day: "Keep costs down—but maintain quality!" (A challenge we invariably meet.) That's why we always specify CHROMTRIM. We know that CHROMTRIM metal mouldings are available in all popular shapes . . . easy to install...perpetually beautiful. Best of all their low cost is matched by their high quality. Yes, that's all we need to put the finishing touch to any job!"





METAL MOULDINGS ARE MONEY-MAKERS!

Just watch YOUR sales soar and profits pile up with CHROMTRIM metal mouldings. Here's the ECONOMY LINE, completely fabricated and produced under one roof, using modern assembly line methods. Cut to convenient lengths and individually wrapped to preserve its lustrous finish, easy to handle—easy to sell . . . here's complete, lasting satisfaction for you and your customers. No wonder CHROMTRIM is the first choice with contractor, dealers and mechanics from coast to coast!

Sold through a nation-wide distribution organization.





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7594

R. D. Werner Co., Inc

295 FIFTH AVE.

NEW YORK 16, N. Y.

In Conado: R. D. WERNER COMPANY LTD.

Write Dept. AB-4

Please reserve my copy of the CHROMTRIM 1949 catalog.

NAME_

ADDRESS.

CITY____

STATE

NEW PRODUCTS

(Continued from page 194)

INDOOR HOME INCINERATOR AB4928

Model No. 2 incinerator is double-walled cylindrical metal unit fitted with welded steel rod inner grating and cast iron swinging top and ash clean-out door. Taps to



any furnace flue six inches or larger. By means of grate baffle, draft is induced through top causing down-draft which dries and super-charges the burning of the contents. Finished in brown bronze, unit measures 23 inches in diameter, 32 inches in height. Burns wet or dry garbage. Majestic Co., Huntington, Ind.

HAMMER STAPLER

AB4908

Stapl-On hammer stapler weighs one pound, 14 ounces. Staples are fed automatically and one tap drives a staple in hardwood or light metal. Hammer-shaped handle



conforms to shape of hand. Handy for installing insulation, or for other construction. Requires ten seconds to load. Will drive 20 staples in five seconds. E. H. Hotchkiss Co., Norwalk, Conn.

ELECTRICALLY OPERATED WINDOW AB4905

Vita automatic window disappears into wall at flip of a switch, carrying a screen into place as it moves. Double glazed, it



is raised into and lowered from "closed" position by rolling or unrolling of screen from which it is hung. Can be used in any room. Adaptable to any style of architecture. Guaranteed against mechanical defect. Run by small electric motor. Automatic Windows, Smithtown Branch, Lona Island, N. Y.

(Continued to page 198)

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BENNETT "DEEP-SEAT" ASH DUMP

100% Heavier for Permanent, trouble-free service - 9 x 4½ inches.
Cat. No. C-203.



SCRU-TITE CLEANOUT DOOR

Offered in cast iron with steel door (C-211) and in solid aluminum (C-212) for superior corrosion resistance. Both have airtight closure with convenient thumb screw. Sizes 8" x 8" and 12" x 8".





BENNETT Warm-Aire FIREPLACE UNITS

The post war recirculating Unit. Leak-seal flange aroundfirebox. Tight-seal base. Longer baffles increase heating efficiency. Interchangeable Rotary or Ratchet control on Damper. Cat. No. C-131.

THE BENNETT LINE OF SALES PROVEN FIREPLACE SUPPLIES

The Bennett Dealer enjoys steady demand for our line through our continuous National Advertising. Bennett Fireplace Supplies are a complete line of profitable quality products. It pays to sell Bennett.



BENNETT

Fresh-Aire

FIREPLACE UNITS

The very best for the modern weather-tight house. Draws fresh air from out of doors, heats and circulates it throughout the house.

Cat. No. C-121.

GRATES & LOG DOGS



Cat. No. A-501 Heavy Duty. Extra Deep, Removable Ends. Ash dumping trap. For Coal or Wood.



Cat. No. A-503 Cradle Grate. Sturdy Coal or Wood Basket.



Cat. No. A-515
Wood Grate. Use
with or without andirons.
Good outdoor fireplace grate.





BENNETT

Expanslip
STEEL DAMPERS

Exclusive "Slip-Joint" avoids damage to masonry from heat expansion. The only damper with 60° Steep-Slope. High dome, Lays up easily. Competitively priced. Cat, No. C-101.



BENNETT Steep-Slope CAST DAMPERS

High dome, steep slope (50°). Steel valve. Broad, strong front flange may be used as lintel bar. Sharp clean lines. Most up-to-date cast damper on today's market. Cat. No. C-103.





SAFETY FIREPLACE CURTAINS

The only Nationally Advertised curtain screen. Every fireplace owner is a prospect for Flex-screen. Its own best salesman, a display on your floor will increase your volume on this "quality" product.

BENNETT-IRELAND INC

NORWICH, NEW YORK

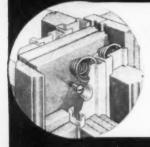
Write now to 449 Market St. for

Catalog and Full Information on the

COMPLETE POST-WAR BENNETT LINE

*Trade Marks Reg. U. S. Pat. Off.

5 FACTS you may already know about The REMOVABLE Window



1 It is the Wood-and-Metal Window

Never sticks, never rattles. In opening or closing, wood slides against metal. Spring pressure acts as a cushión, compensating for swelling or shrinking due to weather conditions.

2. It is REMOVABLE . . . To Wash Both Sides INDOORS!

Move lower sash up, upper sash down, press each window to the left, and REMOVE. The whole operation takes only a few seconds.





3. Delivered COMPLETE...No Assembly Work On-the-Job. R·O·W Windows can be shipped to your construction job as prefit, weather-stripped units. One of 47 R·O·W manufacturer-distributors is near you. This insures prompt delivery, efficient service, and low freight costs.

4. Millions in Use (since 1938)... Nationally Advertised

Consumer acceptance is steadily growing. Advertising is appearing in BETTER HOMES AND GARDENS, AMERICAN HOME, SMALL HOMES GUIDE, and GOOD HOUSEKEEPING.



ROW

5. R·O·W Means:

Removable

Opens Easily

Weatherstripped

Guaranteed by ood Housekeeping

For the name of the R·O·W manufacturer or distributor nearest you write R·O·W Sales Company, Royal Oak, Michigan.

NEW PRODUCTS

(Continued from page 196)

FLOOR SANDER

AB4941

American "Super Eight" high speed floor sander operates at normal walking pace, powered by 2 H.P. American motor with motor speed of 1,750 R.P.M. When motor



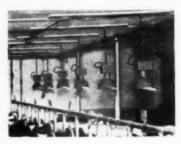
is turned on, it starts under "no-load" condition, due to automatic V-belt take-up. As motor gains speed, pulley squeezes V-belt from side and belt then turns drum. Simple push-button speed control in ranges from 1,600 to 2,800 R.P.M. in 200 R.P.M. gradations. When dial is turned, diameter of drum pulley is changed, varying speed. Easy servicing. Variable drum pressure from 52 to 103 pounds. American Floor Surfacing Machine Co., Toledo, Ohio.

METAL CLOSET DOORS AB4901

Installing time is half an hour for the Orange Metal Bi-Passing doors. In three, four, five and six-foot dimensions, of stand ard five-feet six-inch height, the doors provide total accessibility to closets. Feather touch control slides doors back and forth on ball-bearing rollers. Rubber bumpers cushion sliding panels at door jambs. Each panel has two felt sound-deadening pads at top. Exposed butt-joints are welded smoothly. Frame matches standard Orange door frame and is painted with red oxide primer. Panels are primed in pastel shades. Virginia Metal Products Corp., Orange, Va.

NON-METALLIC SHEATHED CABLE AB4919

Ne-o-Prene Loomwire, a non-metallic sheathed cable for barn, stable, milkhouse and other farm building wiring, resists moisture, fire and rot. Under-



writers' Laboratories, Inc., seal of approval for use up to 600 volts. Available in No. 14 and No. 12 wire sizes, in 2-conductor type, and in standard coil lengths. Two insulated conductors spaced by rubber separator which has within it twisted Fiberglas cords. Rubber spacer adds tensile strength, acts as cushion against hammer blows. National Electric Products Corp., Chamber of Commerca Bldg., Pittsburgh 19, Pa.

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BATHROOM AND ALL- CA



Recessed models with deep drawn, seamless bodies — plate glass mirrors — adjustable glass shelves. Lighted and unlighted models.



Surface models with choice of plate glass and window glass mirrors or without mirrors for all-purpose storage.

Grote makes a full line of recessed and surface model cabinets - with and without Stor-In-Door.

Also Made in Lighted and Recessed Models.



There are many needs for these new and practical Stor-In-Door cabinets . . . The extra

cabinet in the busy bathroom . . . in the

shower room, the wash room — spice and extract cabinets in the kitchen and pantry—



the back porch for outside wash-up - for



the orderly clothes closet — convenient storage in home, shop or office.

Write today for complete information.



Here's the fastest selling feature ever introduced in bathroom cabinets. Extra shelves are recessed inside the door to allow more useable shelf space. Every article in the cabinet plainly visible - every item conveniently within finger-tip reach. Made in surface types and in recessed models, with all the distinctive Grote quality features. Customers recognize this high quality construction — they like this new Stor-In-Door feature. They'll compare — and they'll BUY the Grote Stor-In-Door Cabinet.

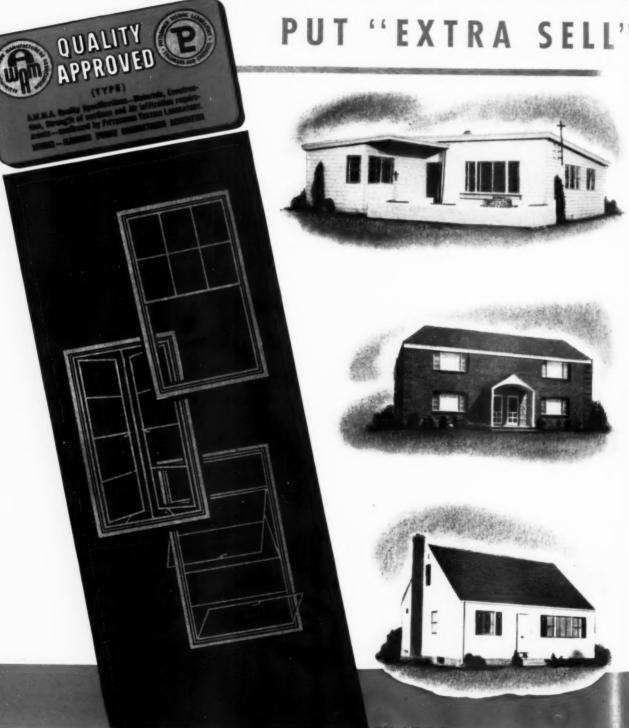
THE



MANUFACTURING CO., INC.

Grote Square - BELLEVUE, KENTUCKY Opposite Cincinnati Established 1901

PUT "EXTRA



Approved WINDOWS

INTO YOUR HOUSES!

■ It's a fact! The bright, red "Quality-Approved" Seal will actually help you sell houses!

It tells your customers that the windows you use are of finest quality—tested by the independent Pittsburgh Testing Laboratory for quality materials, strength of sections, sound construction, and low air infiltration.

These windows will give your customers the advantages they are looking for – neat appearance, easy cleaning, easy operation, freedom from periodic painting.

Your customers will recognize, too, that you are a quality builder—one who selects materials carefully, with no "short cuts" in quality.

"Quality-Approved" aluminum windows will also help you build—faster and more profitably. They come completely assembled, ready to install! No extras to buy, no finish to apply.

It's easy to get all these advantages. Simply insist on aluminum windows bearing the "Quality-Approved" Seal. They're available in all standard types—double-hung, casement and projected. For the names of manufacturers who can supply you, write Dept. A.



Aluminum Window Manufacturers Association

G. E.'s New Electric Heater is easily built right into wall!

For Old Houses . . . for New Houses!

Here's one of those extra, inexpensive luxury features that people look for when they're buying a house.

It's a Built-in Electric Wall Heater. manufactured by the General Electric Company—a wonderful selling feature for any house, old or new.

It was designed with the bathroom in mind, but is installed easily in any room in the house.

Complete, this heater makes any bathroom, any room look more modern. With the snap of a switch, it circulates heat throughout the room by the radiant-convection principle.

And for a very little bit extra, a remote control switch can be attached,



so that the heater can be turned on

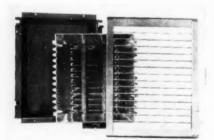
from the bedside or from another room.

Specifications for General Electric **Built-in Wall Heater**

- 1. Comes completely equipped with tumbler switch as integral part.
- 2. Beautiful Hammertone gray finish-can easily be painted another color.
- 3. Fits flush with wall-guard projects only 3% of an inch.
- 4. Highly polished corrugated-aluminum reflector that radiates heat in wide zone.
- 5. Protective grille of high-quality-steel wire—easily removed for cleaning.
- 6. Two long-life heating elements of nichrome wire-ceramic cords.
- 7. Rating-1320 watts, 115 volts, a-c/d-c, 4507 Btu.
- 8. Size: 171% inches high by 131% inches wide by 4 inches deep. Wall opening, 1434 by 1132 inches.
- 9. Shipping weight, 10 pounds.

Amazingly low-priced





Heater consists of only three separate pieces: a wall box, heating assembly, and guard. Easy to install-instructions attached to each heater.

Please send	91	3.6	pa	e	n	2)	 ı	4.	9	ρ	i	21	f		91	11	a		1
on General Heaters,																			
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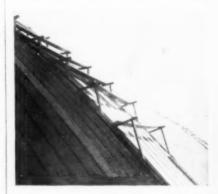
Aluminum Roofing

(Continued from page 180)

which consisted of applying shee metal strips to the weakened section and fastening them by screws that penetrateed the metal roof deck. On several occasions it was necessary to halt athletic events while water was removed from the playing area.

Last year, Minnesota officials called in representatives of Overly Manufacturing Company and Aluminum Company of America, after the University's engineering department had completed a study of all practical types of new roofs which might be used on the field house. A special type of aluminum roofing, known to the building trades as Goodwin Batten-Type aluminum roofing, was finally specified.

Re-roofing of the field house was completed in less than two months. Old roofing and insulation materials were removed in progressive stages and the steel deck was repaired and cleaned. A vapor seal, consisting of a layer of 15 pound and 30 pound asphalt felt was laid to weather, spot mopped and sealed with steep asphalt. Treated wood nailers, 15% inches by 2 inches thick, were laid vertically



The thrift

output,

VIEW of vapor seal before application of aluminum sheets on the roof of the University of Minnesota fieldhouse. Eightyfive thousand pounds of sheets, cross seams and extruded battens were used to re-roof this 22-year-old structure.

and horizontally under the seams and tastened to the steel deck by metal screws through clips on the sides of the nailers. Then a 2 inch sheet of foamglass insulation was laid between, and flush with the top of the wood strips. Finally, a seal of 30 pound asphalt-impregnated asbestos felt was applied to the entire area with hot asphalt.

With these preparatory steps completed, the roof was ready to receive the formed and pre-curved aluminum roof panels and extruded battens. Aluminum battens were laid vertically on the wood nailer strips and fastened by aluminum screws on 20-inch center-.

(Continued to page 204)

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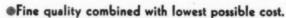
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Models for closet, utility room or basement installation.

Both oil-fired and gas-fired heating units.

(Series Foil/gas burners and controls interchangeable.)

Economical to install, units factory wired, assembled, tested.

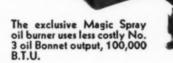
Compact construction, require minimum floor space.

Ample output capacity for the modern home.



The thrifty CONCO-BREESE vaporizing oil burner. Bonnet output, 100,000 B.T.U.







Model VU-1

Designed for utility room, closet, hall or basement installations. Cabinet is 25" wide, 26" deep, 69" high.



Model TF



Model GF

The economical Mono-Flame gas burner, readily adaptable to natural, manufactured, mixed or L. P. gases.















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AFFILIATES:

CONCO MATERIALS HANDLING DIVISION CRANES-HOISTS

CONCO BUILDING PRODUCTS, INC. BRICK-TILE-STONE

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Here's new, breathtaking beauty for bathrooms



New in design... NEW in appearance... NEW in its conception of modern accessories for bathrooms-that is Hall-Mack Crystalcrome!

Crystalcrome combines the lasting brilliance of polished chrome on solid forged brass with the added beauty of crystal that is perfectly clear, jewel-like, and easy to clean.

Whatever your designs or building requirements may be, Crystalcrome will bring new beauty to bathroom decoration. Moderately priced to cover a wide range of building needs, Crystalcrome is quickly and easily installed. It is an important new addition to the complete Hall-Mack line of bathroom accessories for every application from million-

aire's mansion to modest cottage.

Crystalcrome is available in towel bars, soap dishes, paper holders, toothbrush and tumbler holders and other accessories-in designs never before achieved in bathroom equipment. Your copy of the Crystalcrome Catalog will be mailed without obligation on request-write for it today!



HALL-MACK COMPANY

1344 WEST WASHINGTON BOULEVARD, LOS ANGELES 7, CALIFORNIA 7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

NAREB Leaflet Hits Rent Control as Unfair

A NEW leaflet published by the National Association of Real Estate Boards titled Rent Control is Unfair, refers to owners of rental housing units as the only people in the country today whose income is frozen at the 1941-42 level while their living and maintenance expenses have kept pace with the nation-wide increase in living costs.

Pointing out that about 80 per cent of U.S. rental units are owned by "little" people, the leaflet says, "It is unfair by American standards to put a ceiling on the earnings of any group, while that of all other labor, business, and industry is free to rise with the trend of the times."

Aluminum Roofing

(Continued from page 202)

Pre-curved 20 gauge (.032 inch) aluminum panels were then laid over the Cross seams were loose

All were secured by an extruded aluminum cover cap, which was fastened to the metal batten with aluminum screws. Design of the extruded battens formed a highly effective weathertight, sleeve, ensuring maximum protection against leakage.

Final assembly of sheet and extrusions provided an aluminum roof running from gutter to gutter over the ridge. Included in the 85,000 pounds of aluminum employed in the project are: almost 40,000 lineal feet of extruded batten; another 40,000 lineal feet of batten cover; 4,100 roof panels of sheet measuring 39 inches by 120 inches, which were cut, formed and pre-curved to specifications at the plant; 16,000 nails; and more than 50,000 wood and machine screws employed to secure the frame for interlocking roof sections.

This ingenious method of application by Overly engineers permits these 4,100 metal roof panels to expand and contract within the prevailing range of temperatures without buckling from unusual stresses. Yet the whole roof will remain weather tight. Insulation will prevent vapor from condensing on the underside of the roof. The vapor barrier will also prevent vapor from condensing in the insulation and lowering its efficiency. Parapet walls of the field house were also covered with aluminum panels which extended to the aluminum coping, applied to both of the walls and turned down on face and back about four inches. This wall backing will eliminate frost damage to the parapets and requires no welding or use of mastic compounds.

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See bottom of ad for description and prices

Ask your mechanics about

LIGHTER

FASTER

LONGER WEARING

Goldblatt MASONRY TOOLS

Goldblatt masonry tools save time, work, money. For 64 years, skilled craftsmen have chosen Goldblatt, because Goldblatt tools are forged stronger, balanced better, more comfortable, non-corrosive, more flexible. Every Goldblatt tool is guaranteed for materials and workmanship.

WRITE FOR FREE CATALOG

Send today for 64-page illustrated catalog describing largest line of tools for your trade, including Steel Mortar Boxes and Transit Levels. Goldblatt offers a complete line of bricklayer, mason, and

plasterer tools and supplies for every masonry need - and for Road Paving and General Building Contractors, Trade Schools, Institutions, and Municipalities. Goldblatt can re-blade plastering trowels; can make up special tools to your specifications.

PLASTERING TROWEL NO. 25 - aluminum mounting; 10½ or 11 inch lengths. Each \$3.35

CEMENTERS' TROWEL NO. 45 - aluminum mounting; 10, 11, 12-inch, each \$3.35 - 14-inch \$3.60 - 16-inch \$3.85 - 18-inch \$4.10.



This low-cost electric hand saw saves time . . . stands up under steady use, on the toughest cutting jobs! Fred W. Wappat ELECTRIC HAND SAWS

Model A-8" 25/8" cut \$11500

Model A-9" 37/16" cut \$13500

FREE TRIAL OFFER

It doesn't cost a penny to try a Fred W. Wappat Saw. If your dealer can't supply you, write direct. If you don't agree it's the best saw you can buy, simply return it—there's absolutely no charge!

PROOF of Fred W. Wappat EFFICIENCY

Best recommendations for Fred W. Wappat Saws come from our thousands of users. For thousands of users. For thousands of users. "On tham Co. says." On Puerto Rico drydock job. one Fred W. Wappat Saw saved \$1.100.00 in labor costs alone!"

make all the cuts you need FAST and ACCURATELY!

.. cut tough materials, from wood to steel ... operate simply, safely, easily ... require minimum maintenance.

Powerful Fred W. Wappat Electric Hand Saws are low in cost-high on quality-they're the product of over a quarter century's experience in making fine electric hand saws. Fred W. Wappat-designed gears, turbinecooled motors, simple, single-point lubrication increase efficiency and minimize off-the-job repair time and general maintenance. Hundreds of thousands of feet can be cut before a Fred W. Wappat Saw needs attention other than lubrication and blade sharpening.

You make all angle and grooving cuts—fast, with predetermined accuracy. Thanks to practical, field-proven balance, you get easy, fatigue-free operation, saving time and money on awkward, hard-toreach cutting jobs. And, you cut a wide variety of materials—wood, transite, concrete, light gauge met-

als, etc.
Fred W. Wappat Electric Hand
Saws are known as the saws that give a full day's work, even with inexperienced operators. They're versatile, fast, and dependable-ask anyone who uses one!

Fred W. Wappat, Inc.

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YOU DEMANDED THIS MASSIVE SHINGLE



For a long time architects and builders have been demanding an asphalt shingle with these features: Greater thickness, greater rigidity, greater protection through increased headlap and a longer life span.

HERE IT IS ... "The Architect", a new shingle designed especially by Bird & Son to meet the most exacting specifications:

- Thick massive butts... approximating slate or wood shingles in caliper... heavy shadowlines.
- Weight 290 pounds per square...the perfect balance of greater saturation and heavier coating of life-giving asphalt.
- Triple coverage, 5" headlap . . . Major factors in long-lived protection against standing snow and driving winds and rains.
- Surfaced with larger mineral granules ... outstanding appearance, better adhesion, longer surface protection.
- Greater rigidity because of the heavier felt base, more asphalt and heavy, coarse mineral granules.
- Cost of "The Architect" is in the asphalt shingle price range . . . a prime selling feature for this rich, luxurious shingle.



The Architect shingle is presently available only in areas served by our East Walpole plant. Write Bird & Son, inc., Dept. AB-1 1472 West 76th St., Chicago 20, Ill. for information about our "#27 Master-Bilt Shingle with similar quality features.

COSTLY ERRORS

Save Time and Money



THE DAVID WHITE UNIVERSAL LEVEL-TRANSIT

IS THE MOST PRACTICAL ALL-AROUND
BUILDER'S INSTRUMENT YOU'VE EVER HANDLED

YES, you'll be time and money ahead if you use a David White Universal Level Transit in connection with all your survey and checking operations — your building and road construction. The David White Universal Level Transit is an extremely accurate, amazingly rugged instrument. It quickly converts from level to transit. It's designed to provide maximum strength and protection to all parts thus assuring you constant precision over long periods of use and handling.

Among its many features are: Full 12" telescope with 25 power coated optics, a patented ball-bearing race, lock and release lever system, easy perfect alignment adjustments, guarded horizontal circle, vernier accurate to 5', vertical arc 3" diameter.

Write today for complete information on this time and money saving instrument. Included will be helpful booklet — "How to Lay Out Building Lots."



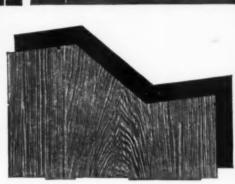
Manufacturers of
INSTRUMENTS FOR ENGINEERS,
SURVEYORS AND BUILDERS
311 West Court St., Milwaukee 12, Wis-

1949.

 Attractive dwelling roofed with K&M No. 5 Asbestos Cement Shingles, and showing perfect alignment.



Fewer pieces to handle... cost less to apply



 K&M "Century" No. 5 American Method Type Asbestos-Cement Roofing Shingle...24 inches wide.
 Note cypress texture and thatched butt.

K&M "Century." No. 5

American Method Type

ASBESTOS-CEMENT ROOFING SHINGLES

Here's the perfect roofing shingle for builders who want to speed up work and cut their costs. Units are large . . . only 90 required per square . . . and only 2 nails per shingle. They're self-aligning . . . punched and notched for fast, even application. And the results: a good-looking, neatly-finished job plus important savings of time and money.

"Century" No. 5 Roofing Shingles are ideal for new and low cost housing. Can also be applied over old wood shingle or composition roofs. Made of asbestos and cement, they are fireproof, rotproof, time and weather resisting. Supplied in White, Spanish Red, Black and Surf Green colors . . . each with weathered cypress texture and random width thatched butt.

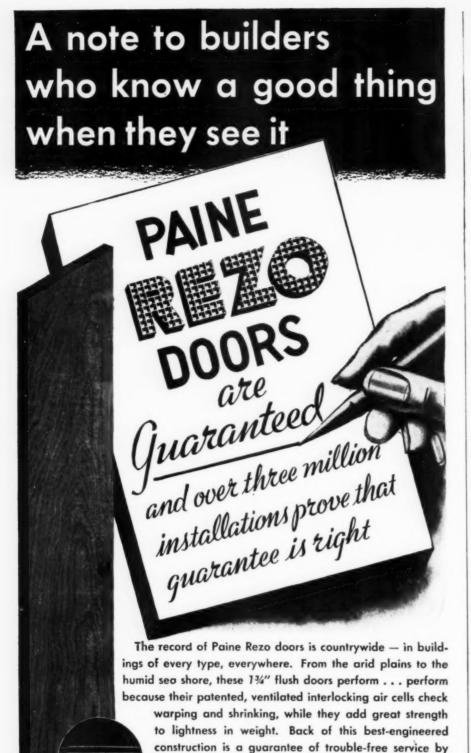
Get full information about "Century" No. 5

Roofing Shingles from your K&M Dealer, or write direct to us. We'll attend to your inquiry promptly.



Original manufacturers of Askeslos-Cement Shingles in this country

KEASBEY & MATTISON
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prove that these time-tested doors are the best flush doors of all U.S. Pat. 1.887,814 The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra strength, and provides greater rigidity.

Your dealer is now getting more Paine Rezo doors. Order from him, and write for an informative englneering bulletin.

America's largest exclusive producers of flush doors -

a company that has over three million installations to

LUBER CO., LTD. Oshkosh Wisconsin

WINDOW GLASS

In Colonial America By G. P. MacNichol, Jr.

GLASSMAKING is the oldest of American manufactures. Started at Jamestown in 1608, it was the earliest industry in which the colonists in America engaged. Glass, too, according to the records, formed part of the first cargo exported to England to show what could be produced on this side of the Atlantic.

From the Jamestown beginning down to the amazing accomplishments of today, the American story of flat glass production is filled with romance, enterprise, failure and achievement. The story begins with a few rude colored beads, fashioned to trade with the Indians, and ends with factories organized with scientific and mechanical equipment, directed with the utmost technical skill, that are putting forth many products on which our health, comfort, and happiness depend. Glass making touches the story of American life and progress at every point since the beginnings of colonization in Virginia, more than three hundred years ago.

The first venture at Jamestown was soon abandoned. About 1640, a small plant at Salem in Massachusetts began to make window glass, rude bottles, roundels or bull's-eyes, coarse bowls, pitchers and other articles much needed by the colonists. This enterprise continued intermittently for two or three years. The next attempt at glass manufacture was made in New York and, so far as we know, the factory or factories there established remained in operation until 1767 or thereabouts. Apparently no domestic glass was made in 1700 or in the following four decades. In 1739, Caspar Wistar founded glass works in Salem County, N.J. Connecticut entered the industry next, in 1747. Boston followed in 1749. In 1750 there arose a glass factory at Quincy, Mass., which lasted for about ten years. In 1753, another glass house started at New Windsor, N.Y., and kept in business until after 1780. In 1754, Loderwyck Bamper began operations in Brooklyn. Between 1763 and 1765 that extraordinary man, "Baron" Stiegel, was starting his glassworks at Manheim, Pa.

In the latter part of the 18th century, other glass factories sprang up and were successfully (Continued to page 212)

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"\$83<u>67</u> on 10 squaresthat's what ES-NAILS saved me ... good money in the bank!"

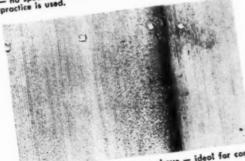
- says a prominent New Jersey builder



A 4½-room ranch-type house built with ES-nails in a New Jersey development. This shows the house after the sheathing was applied, but before shingling.



Here is a close-up of the actual constructional op no special techniques are required. Standard b



In full, he stated: "During construction of a recent development, I used ES-nails to attach wood shingles directly to gypsum sheathing and let me tell you they really do a job.

"I feel ES-nails give better results than other types of construction . . . we are highly pleased with their locking ability, and will use them exclusively in the future."—High praise for the

Other practical reasons for using ES-nails in-NEW ES-nail. clude: their ease of application - no special tools are required, use a regular shingling hatchet or carpenter's hammer . . . they are selflocking, attaching wood or ashestos shingles directly to gypsum or insulation sheathing . . . and they can be driven at any convenient point

Use this modern construction method on your - no need to locate studs. next job - a method that enables you to take full advantage of the inherent economies and valuable construction characteristics of nonwood sheathing: lower unit cost; faster applications; less waste; weather tightness. Substantial

For more information about the value of savings result. ES-nail construction — and the savings it will mean to you, call your supplier, or write: Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.

Accepted on F.H.A.-Insured Houses



See the flat, even heads shown above — ideal for concealed nailing of wood shingles. ELASTIC STOP NUT CORPORATION OF AMERICA

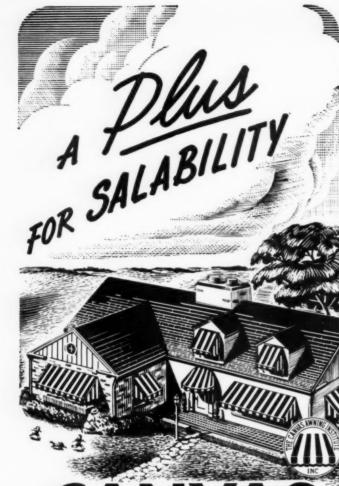
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CANVAS AWNINGS

You sell the sunny side of the street with Canvas Awnings, You create shade just where it's needed, when it's needed-and you add gay, colorful beauty unattainable by any other method. Canvas Awnings are positive assets with a plus cash value well in excess of the moderate costs involved.

Avail yourself of the complete service and wide selection of designs and fabrics offered by Canvas Awning dealers in your community.

THE CANVAS AWNING INSTITUTE, INC. AND NATIONAL COTTON COUNCIL

"There is No Substitute for Canvas Awnings"

THE KITCHEN-AIRE EXHAUST FAN Is Different . . . !

ORIP RING WHICH CATCHES

Check these outstanding features . . .

- MAXIMUM EFFICIENCY;—exhaust grill may be mounted above cooking range, even on an inside wall.

 FIRE-SAFE:—grease laden air is NOT drawn over motor.

 QUIET:—operating mechanism is mounted OUTSIDE the wall!

 WEATHERPROOF:—back draft damper protects against heat loss; operating mechanism is housed in corrosion-free aluminum.

 ECONOMICAL:—low in cost: easy to install. Grease and moisture laden air is not deposited on kitchen walls—saves on cleaning and decorating.

rating.
WIDE USEFULNESS: electrically operated, can be installed anywhere, in new or old houses—keeps kitchens cool and odorless, bathrooms and recreation rooms fresh, and basements dry.

Here are features that the conventional exhaust units can't offer . . . Kitchen-aire units are actually SUPERIOR, and they're selling fast! Underwriters Approved As Advertised in Better Homes and Gardens

STEWART MANUFACTURING COMPANY 3204 E. Washington Street Indianapolis, Indiana

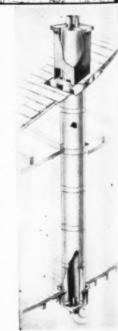
VAN-PACKER CHIM TITLE I ECONOMY HOUSE

USPENDED for FLOOR FURNACE

- FHA and Underwriters approved for gas, oil, coal, wood, etc.
- SHIPPED complete—all parts for the entire installation-packaged and illustrated installation instructions.
- CEILING or floor suspended-no foundation.
- INSTALLED in 4 man hours or less-summer or winter.
- IMMEDIATE shipment-one or a carload.
- 20% to 50% less than brick.
- LIBERAL discounts to project builders.

VAN-PACKER CORPORATION

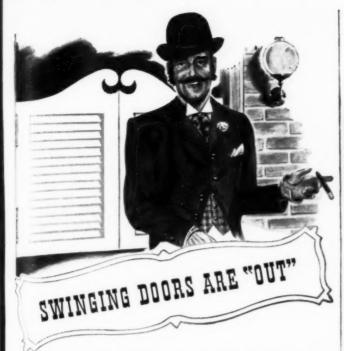
136 S. Clark St., Chicago 3, Ill. Phone: Randolph 6-1840



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For garage doors that give trouble-free service... specify RICHARDS-WILCOX 999 Garage Door Hardware

For many years, leading architects and builders have agreed that Richards-Wilcox Door Hardware is the world's finest. Now, with the new line of R-W 999 Garage Door Hardware, out-dated, troublesome swinging garage doors can be converted quickly and easily into the modern, overhead type.

Overhead garage doors hung with R-W 999 Hardware are weathertight, the easiest to operate, and they "stay put." And R-W 999 Hardware comes *complete*—in one convenient kit—with everything needed for installation and operation.



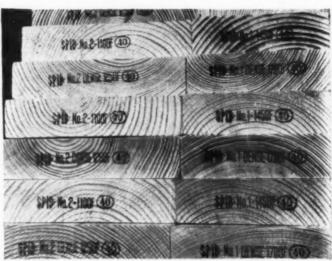
For further information, simply call or write the nearest Richards-Wilcox office. Ask for free folder with complete facts about R-W 999 Hardware—your surest cure for garage door grief.

1880 LEADERS IN DOOR HARDWARE OVER 69 YEARS

Richards-Wilcox Mfg. Co.



Yes, you can get lumber like this!



Just ask your lumber dealer for

CROSSETT LUMBER PRODUCTS

V They're well manufactured

V They're seasoned right

They're big mill quality

V They're dependable

NOW AVAILABLE TO YOU IN:



ARKANSAS SOFT PINE

Satin-like Interior Trim Soft Textured Sheathing Nail-holding Dimension

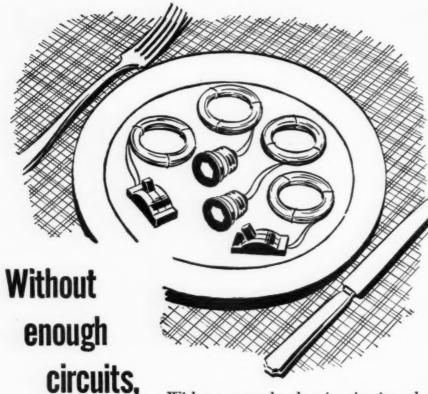


ROYAL OAK FLOORING

See them at your dealer's

CROSSETT LUMBER CO. CROSSETT

Am



Without enough electric circuits, the lights and appliances in your houses will suffer from "electrical starvation"—and you may starve for sales! People don't want electrically undernourished houses.

An adequately wired home sells readily at a good price, because home buyers nowadays have learned to look for Adequate Wiring.

An Adequate Wiring Certificate is your proof that each house you design and build has:

- Enough outlets, fixed lights and switches.
- Adequate electric service entrance equipment, fed by three ample size wires.
- ▶ Enough branch circuits and spares for present and future electrical needs.

The Sign of the Times Use the services of the local Adequate Wiring Bureau in preparing a complete Adequate Wiring layout and specification, before you put the electrical job out for bids. Get the wiring into the plans for better appraisal—a better loan!

If there is no Adequate Wiring Bureau in your community, write us or your local electric utility for information on how to take advantage of Adequate Wiring in the homes you build.



USE THIS COUPON if there is no Adequate Wiring Bureau in your area

NATIONAL ADEQUATE WIRING BUREAU, Dept. AB-4 155 E. 44th Street, New York 17, N. Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

NAME.....

STREET ADDRESS

Publish Third Edition of Timber Engineering Book

A 147 page book on timber design, "Modern Timber Engineering," has recently been published in its third edition by the Southern Pine Association, New Orleans, La.

Co-authors of the book, which was originally released in 1942 as "A Course in Modern Timber Engineering" and revised in 1946, are W. Fleming Scofield, associate professor of Civil Engineering, University of Alabama, and W. H. O'Brien, engineer, Southern Pine Association.

Basic information on timber design is presented in the book, which has 55 pages of examples in addition to an appendix of design data covering various species of wood

Earlier editions of the publication were used as a textbook in more than 80 engineering and architectural colleges, Association officials said. It is being made available to practicing architects and engineers for the first time. The cost per copy is \$1.50.

Window Glass

(Continued from page 208)
operated for various periods of
time. There was one at Temple,
N.H. (1779) and another at Keene,
in the same state; at Boston (1787),
Albany (1792), Glassboro, N.J.
(1775) Kensington in Philadelphia
(1771) and Baltimore (1790). Glassmaking began in Pittsburgh in
1795. This list might be considerably lengthened. Most of the glass
factories of these days had only one
small furnace and about a dozen
workmen.

The Pittsburgh plant was the first to use coal as fuel. The nearness of coal and the excellent sand in the adjoining rivers resulted in the rise of Pittsburgh as a glass center.

Window glass was made principally in sizes 10 x 12, 9 x 11, 8 x 10, 7 x 9, 6 x 8, 5 x 7, and 4 x 6 inches. We know something of the glass products and incidentally of the temper of the times from newspaper advertisements. For instance, in the Pennsylvania Chronicle, July 31, 1769, Wistar advertised as follows:

". , , window glass, consisting of the common sizes, viz: 10 x 12, 9 x 11, 8 x 10, 7 x 9, 6 x 8, etc. Lamp glasses or any uncommon sizes under 16 x 18, are cut on a short notice: where also may be had most sorts of bottles, gallon, half gallon, and quart, full measure, half gallon case bottles, snuff and mustard bottles, receivers and retorts of various sizes, also electerising globes and tubes."

SAND FLOORS Twice as Fast!...

AMERICAN SUPER EIGHT

Cut Building Costs!

This sensational new AMERICAN Super Eight Floor Sander cuts twice as fast as Standard Sander ... saves bours on floor surfacing jobs ... cuts costs! It's all new-with a big powerful 2 H.P. motor for high speed sanding ... 8" drum . . . quickly adjustable drum speeds, 1600 to 2800 r.p.m....

Cleaner operation made possible by new design dust pick-up and double volume bag ... compactly built with no waste space ... new low center of gravity...perfect balance for easy handling. See the Super Eight now -the Sander that helps you increase your production and reduce costs! Send coupon for more details,

THE AMERICAN FLOOR SURFACING MACHINE CO. 511 SO. ST. CLAIR ST., TOLEDO 3, OHIO

Please send free description and prices on the new American Super Eight Floor Sander, without obligation.

Double Volume Dust Pick-Up

New design with greater capacity for cleaner operation at high speeds.

Big Power-

A full 2 H.P. motor gives

you super speed and

power to get the job done

fast—and save money!

Adjustable

Single adjustment quickly

changes the drum speed ... range 1600 to 2800

Name.....

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City.....State....

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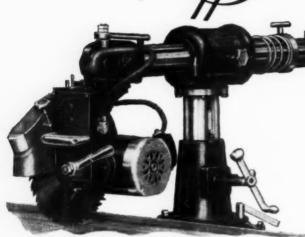
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d as g of 9 x amp sizes short had half

half 111115torts ising







Anything radial power saws can do, Comets do best! Thousands are proving this fact every day, everywhere, for every Comet owner. It makes sense to buy Comets! They give "more cuts per dollar," which means more profit! Contact your nearest Comet dealer-or write direct.

MAKES ALL THE CUTS



BEVEL CROSS CUTTING



BEVEL RIPPING



DADOING



RIPPING



SHAPING



COMPOUND MITERING

Distributors of Davis and Wells Woodworking Machines

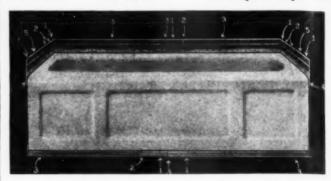
CONSOLIDATED MACHINERY & SUPPLY CO., LTD. 2029-33 Santa Fe Avenue, Los Angeles 21, California



For Trouble-Gree Bath Tub Edges | LUCKE

Specify

Leak-Proof Bath-Tub Hangers No Leaks . No Cracks . No Repair Expenses



The Modern Way to Prevent Leaks

There is no excuse for cracks or leaks or repair expense in good building. Leading architects specify LUCKE to overcome this problem. Lucke Hangers build tubs into wall.

Sold by Leading Plumbing **Supply Houses**

MANUFACTURED BY

W. B. LUCKE, Inc.



HOW TO GET RID OF EXHAUST GAS FUMES IN GARAGE BLDGS.

Solve this serious problem with a National approved underfloor system

For the garage owner planning a new building or extensive remodeling, National has designed and engineered an underfloor system for effective removal of poisonous carbon monoxide exhaust gas and smoke. National Systems are completely fabricated at factory and shipped complete with motor and blower, in a packaged kit. Nothing else to buy. A proven system—National has installations in thousands of garages in every part of U. S. Send us your floor plans and specifications—we will promptly supply scaled drawings of our equipment. Literature on request.

PHANTOM (DISAPPEARING TUBE) UNDERFLOOR SYSTEM

Standard kit, 2 floor in-lets serving any 2 of 4 cars in a row,

\$319.50 F.O.B.

Complete packaged kit, including motor and blow-er-underfloor duct work requires merely encasing in poured concrete). Additional car service extensions, \$45.00 each. Note in illustration that tube disappears without entering main trunk line—allows balanced flow of air through main duct and perfect exhaust gas removal.

National also makes under



National also makes underfloor (disappearing tube) systems for use with vitreen tile duct work.

COMPLETE INFORMATION AND LITERATURE ON REQUEST

The National System of Garage Ventilation

Dept. 916-W, 318-330 N. Church St., Decatur, Illi World's largest manufacturer of exclusive garage ventilation equipment. Decatur, Illinois

Modern Ideas

FOR MORE PROFITS

with

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and

Miracle Walls

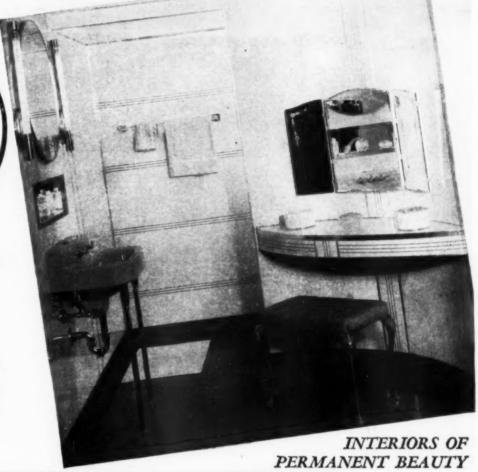
FOR INTERIOR WALLS IN—

Homes Apartments

Stores Offices Hospitals Hotels

Factories Schools

Institutions etc.



662 - Seg core tou

More distributors and dealers are switching to the New, Hi-Baked, Plastic Enamel Surface, Miracle Walls by TYLAC every day because they know that consistent demand builds consistent profits. And there are many good reasons why. Here are just a few of them:

MODERN IDEAS! — Eighteen beautiful colors and 4 modern patterns offer endless varieties of fascinating and delightful combinations to suit every need and taste.

FLEXIBILITY! — TYLAC is easily installed on flat or curved walls, ceilings, arches, recesses, etc. It's more resilient — more flexible and lends itself to many decorative schemes.

BEAUTY! — TYLAC has higher gloss — better color retention. Dull, drab walls are quickly converted into bright friendly walls of lustrous beauty — and retain that beauty throughout the years. Note the modern beauty of the "Powder Room" pictured above.

PERMANENCE! — TYLAC is a composite of every superior feature in pre-fabricated wall board manufacture. Installed in finished form, it does not crack, craze or chip as many ordinary walls do. Once installed it's permanent and lasts a lifetime.

ECONOMY! — TYLAC is luxurious, yet inexpensive — resists household acids and grime — never needs repainting or varnishing — occasional wiping with a soft, damp cloth restores its original freshness and lustre — and its newness.

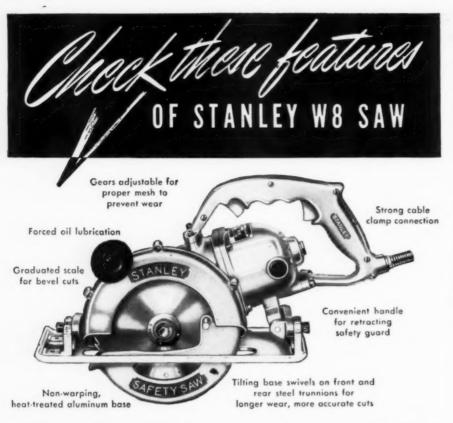
GREATER SALES! — Now you can supply your customers with the finest in wall board coverings — Miracle Walls by TYLAC. Write for our liberal sales, advertising and dealer helps program that really helps you sell more TYLAC — and build more profit.



TYLAZ ZUMIZANY MONTICELLO, ILLINOIS

PIONEERS IN THE PREFABRICATED WALL PANEL INDUSTRY

Ameri



TWO SWITCH TRIGGERS

These important features plus plenty of power and rugged construction make Stanley Saws a practical choice for on-the-job cutting. W8 Saw cuts any depth from 0 to 23/4", operating from any A.C.-D.C. outlet. Round arbor shaft permits using any standard saw blade. Each Saw is furnished with ripping gauge and packed in Stanley metal carrying case. More hours of profitable

work in this portable electric saw ... more jobs you can use it on, more power on every job, more years of usefulness.

See Stanley W8 Saw or W7 and W9 models at your dealer's, or write for circular. Stanley Electric Tools, 492 Myrtle St., New Britain, Conn.



Saw Track No. 158 changes the Stanley Saw into a bench saw for production work.

The greatest name in tools

STANLEY

Rea U.S. Pat. Off.

HARDWARE . HAND TOOLS . ELECTRIC TOOLS

Publicity-

(Continued from page 113) ings, interiors, single column pic-

Some suburban papers will use pictures if you provide the mats, or pay for the cut. By knowing which, you can get the maximum of publicity space. In distribution of mats, it is important to buy the best. Once, to save time, I used a mat service close to my headquarters instead of using the best, and got such poor mats that the papers would not use them.

In publicity, it is important to go first class for the most and best results. Fees may seem high, but actually they are not if the results are obtained. Free space obtained in one paper, if translated into advertising rates, more than pays for a press agent's fee for a month.

Along with maintaining contacts with real estate editors, I also contact regularly the advertising departments, even if the account is not advertising.

All publicity, during sales campaigns, should be correlated with advertising. Once an advertising campaign is started, publicity releases must be keyed to it. News releases are not given to papers not included on the schedule, as a general practice.

Good Newspaper Relations

As for the point on how to treat newspaper personnel, the best way is to be nice to them. Buy them a luncheon or dinner occasionally, and a press party when appropriate. They are trying to get along, the same as you.

Not much is done here in radio, although I do have a radio contact man who lines up broadcasts when something adaptable develops. Every radio station devotes some time to public service. Housing being a hot subject can, on occasion, be included.

For clients who wish, articles are prepared for various trade publications. Some tie-ins were made last year in connection with National Home Week, with copy for clients slanted to take advantage of attention focused upon the week.

Some adept operators can handle their own publicity, public relations, and advertising. The smaller operator can do it better than a large operator. So many problems confront construction these days that it is difficult for a builder who has not practiced being in the public eye to get the most out of publicity. Hometown papers staffs

(Continued to page 220)

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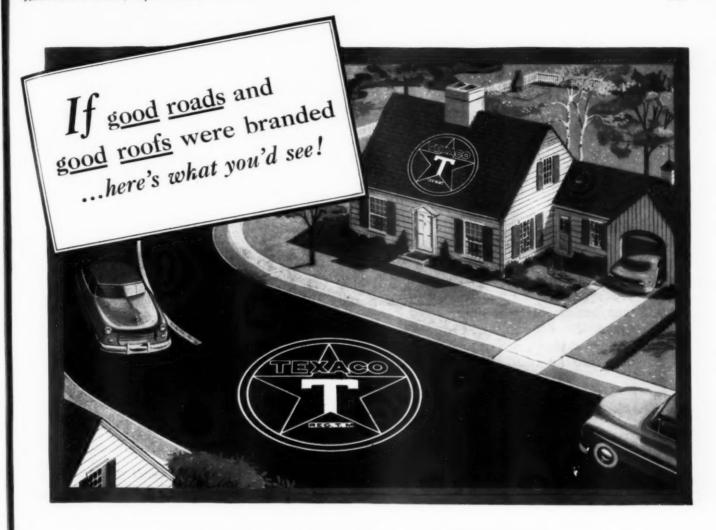
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-because both are <u>high quality</u> <u>asphalt</u> - and TEXACO is one of the world's largest producers of <u>high</u> <u>quality</u> <u>asphalt</u>!

THOUSANDS of miles of highways are paved with high quality Texaco asphalt. And thousands of homes, farm and business buildings are roofed with high quality Texaco asphalt.

In a good road, crushed stone, carefully selected and graded, is combined with high quality asphalt—to produce a resilient, weather-, waterand wear-resistant surface. In a good roof, mineral granules, carefully selected, permanently colored, screened and graded, are imbedded in high quality asphalt—to produce a resilient, weather-, water- and wear-resistant surface.

Good roads and good roofs must take a lot of punishment. They can—when they are made with *high quality* asphalt, the greatest weatherand water-proofing element ever known.

And—Texaco, with its extensive petroleum producing and refining facilities, has available

and can select the exact right grades of asphalt for every type of product. This asphalt know-how means mighty fine products for Texaco Roofing Dealers.





TEXACO

ASPHALT SHINGLES and ROOFING

SOLID ROOFING ASPHALT

MEMBER OF THE ASPHALT ROOFING INDUSTRY BUREAU

Amer

• INEXPENSIVE

· LONG LASTING

Cabot's Creosote Stains will give outside woodwork long lasting beauty and protection, yet cost ½ as much as good paint. Available in a wide variety of non-fading colors . . . clear brilliant hues to weathering browns and



• ATTRACTIVE

grays. The 60% to 90% proportion of pure creosote oil, the best wood preservative known, means years of protection from decay and termites. Cabot's Stains penetrate deep into the wood... bring out and retain all the natural beauty of grain and texture.

Write today for complete information and color cards.

SAMUEL CABOT, INC.

424 Oliver Building

Boston 9, Massachusetts

Take your choice:

NAILED-and-BOLTED or GLUED



ARCHES . BEAMS . BOWSTRINGS

AMERICAN offers both

A wide selection of popular roof designs . . . The best in nailed-and-bolted bowstrings, crescents and belgians, plus glued beams, trusses, and arches. (Superior glue process—developed in our newest plant . . . Controlled temperature, uniform pressure, during setting period.)

Write for literature that describes the most widely used trusses—AMERICAN!

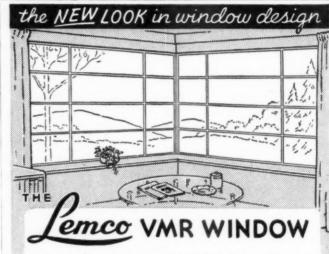


AMERICAN Roof Truss Co.

William and Raymond Waddington

6856 Stony Island Ave., Chicago 49, Illinois ... PLaza 2-1772

• • • ESTABLISHED 1922 • • • • •



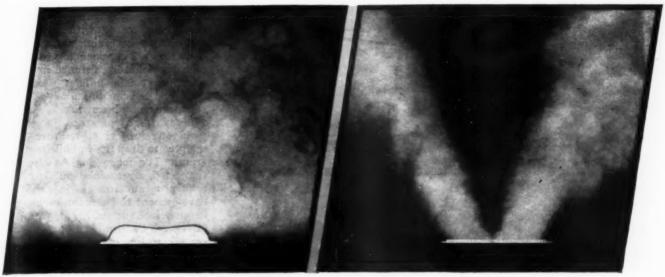
- To achieve the graceful horizontal lines so desirable in modern architectural style, choose VISUALITE VMR windows, exclusive with Lemco. Available in a variety of sizes in both STEEL and ALUMINUM; they can be combined in bays or corner treatments as shown.
- \bullet Types available; all 5' 9% '' wide: 44 VMR (shown above) 4' 2% '' high; 43 VMR- 3' 2% '' high; 4423 VMR- 4' 2% '' high with two 3-light high vents.

WRITE TODAY for our new 1949 Catalog or see Sweets for further information on Steel and Aluminum Casements and Basement Windows, Aluminum Awning Windows and other LEMCO BUILDING Products.

AMERICA'S OLDEST CASEMENT WINDOW MANUFACTURER

CROFT STEEL PRODUCTS, INC.

WHICH IS TRUE DIFFUSION?



HONEYWELL REGISTER

FACTORY SETTING-120°

CONVENTIONAL REGISTER

FACTORY SETTING-22°-22°

JUDGE THESE FACTS These actual unretouched photographs (except for blacking in the base and pointing up the registers) were taken under average room conditions.

Disturbing air streams cause drafts and cold spots. A gentle, even blanket of air is distributed to every part of the room with Honeywell Air Diffusion Registers (see photograph at left) which assures "Comfort Unlimited."

plaints by home owners. They are eliminated with smooth, wide angle diffusion of the air within a room as shown in the photograph at the left of the Honeywell Air Diffusion Register.

quadrants with Honeywell Air
Diffusion Registers and save:
quadrant cost 20c
damper cost 5c
shop labor (assembly) 50c
job labor (mounting). 50c

This saving will more than cover the slight extra cost of Honeywell Air Diffusion Register PLUS the added economy of one man, not two, for quick accurate balancing of the heating system.



YOU BE THE JUDGE OF WHICH TYPE REGISTER BOTH YOU AND YOUR CUSTOMERS PREFER Honeywell CONTROL SYSTEMS

Americ



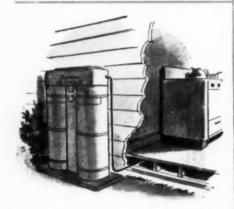
In Homes You Build Beyond the Gas Mains

Users like it!

Hundreds of thousands of PYROFAX Gas users know that it is the cleanest, hottest, finest fuel obtainable. To the prospective buyer PYROFAX Gas means modern cooking, modern refrigeration, modern water heating at its best.

Home Buyers prefer gas - the choice of two out of three. Install PYROFAX Gas and speed the sale!





You'll like it!

PYROFAX Gas is the modern fuel for homes beyond the gas mains. It boosts their value. It's economical, efficient, convenient.

PYROFAX Gas can be installed quickly and easily. It is piped through the exterior wall from the twin steel cylinders directly to the range, water heater, refrigerator or other gas appliance.

Nationally Advertised Appliances

Magic Chef ranges, Servel refrigerators, Ruud and Bryant water heaters, and other gas appliances are available for use with PYROFAX Gas.



For full information see SWEET'S CATALOG, or address Dept. AB.

PYROFAX GAS DIVISION

Carbide and Carbon Chemicals Corporation 114 30 East 42nd Street, New York 17, N.Y. The word "Pyrofax" is a registered trade-mark of Carbide and Carbon Chemicals Corporation.

Publicity-

(Continued from page 216)

often can do more to help a builder in publicity and public relations than metropolitan papers. Size has everything to do with it. With competition becoming more acute, operators are commencing to summon specialized assistance in merchandising. The builder who has a story to tell can obtain newspaper cooperation on his own.

Many tract operators, in going from one project to another, are tempted to drop their publicity programs. Too many do. As already suggested, a sustained public relations program from the sale of one development to the next keeps the name before the public, before new buyers. You cannot hope to get something in every paper every week, but legitimate news gets its break in print.

The disadvantage of not maintaining a sustained program, even on a curtailed basis, is that much more steam has to be built up for the start of each new program.

This creates familiarity of name, and reduces sales resistance.

How to Write Leads

In the box, below, is a typical news story as it was prepared to be submitted to one paper. The lead, included in the first two paragraphs, is "pegged" on something of current news interest.

More persons in all income groups could buy homes if longer term mortgages were available.

This is the belief of Spiros G. Ponty, immediate past president, Home Builders Institute, who praised the current thinking of lenders toward lengthening the loan repayment or amortization period to more than the current average of 20-year mortgages.

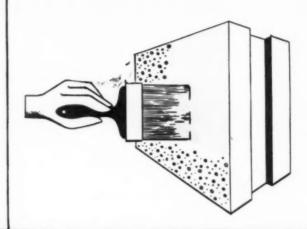
Best way to reduce monthly payments, Mr. Ponty declared, is to extend the amortization period to what is technically known as the maximum efficiency of the loan.

A staunch advocate of lowerpriced homes, Mr. Ponty feels that the amortization period should be extended beyond the 25 year limits now permitted by FHA and GI financing methods.

In support of his amortization extension plan, Mr. Ponty used as an example the various

(Continued to page 224)

T[®] color-style concrete block, brick and stucco...



T[®] shield porous wall surfaces against dampness...



USE BONDEX...
it's a NATURAL
for masonry!



When it's desirable to give a masonry home the distinction of color — when it's essential to seal exterior or basement walls against destructive moisture — call on Bondex.

From every viewpoint — performance, acceptance, economy — Bondex justifies your confidence.

BONDEX OUTSELLS ALL OTHER CEMENT PAINTS COMBINED.

SEND FOR NEW 12-SHADE COLOR CARD SHOWING INTERMIXES.

THE REARDON COMPANY

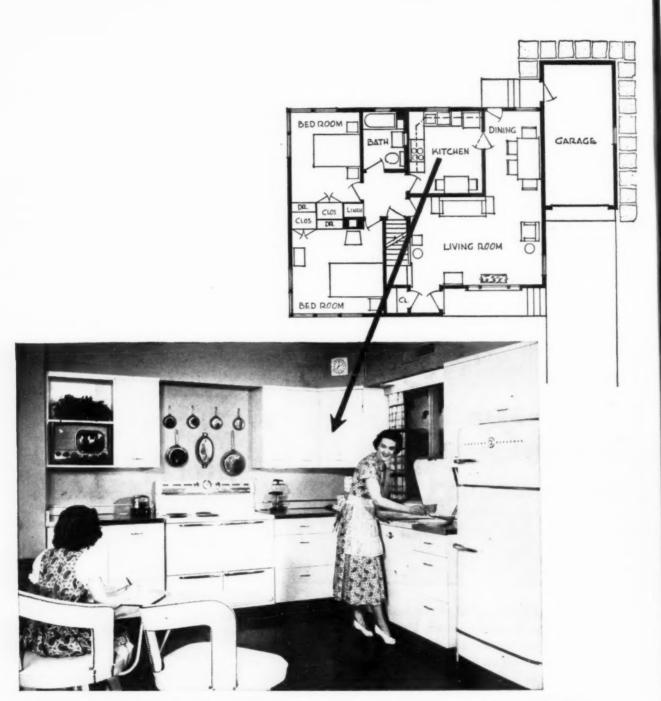


ST. LOUIS 6 • CHICAGO 9 • LOS ANGELES 21

BAYONNE, N. J. • MONTREAL 1

America

Blueprint of the home everybody wants



• HOME BUREAU CAN HELP PUT THE G-E WAY OF LIVING IN YOUR HOMES!

A truly modern home is the home that turns the chores over to electrical servants. Millions of home buyers are learning that they can enjoy the G-E Way of Living for only a few extra dollars a month. Let the G-E Home Bureau help with your plans for a G-E, Dream House!

....because it features The G-E Way of Living!

THOUSANDS of families are enjoying easy, electrical living in G-E Equipped homes. And thousands more insist on the G-E Way of Living whenever they go home-hunting.

It's their dream—and it's so easy to make it come true under the "packaged mortgage" plan. A complete modern kitchen is included as a basic part of the house for only \$4.80*

extra a month. No costly installment charges. No waiting to enjoy the wonderful advantages of a complete modern kitchen.

And for you! Extra profits—but no extra cost! Faster sales! Greater prestige!

Let General Electric Home Bureau help you plan the G-E Way of Living into your homes, starting now!

*When equipment is included in a long-term mortgage.

GENERAL ELECTRIC HOME BUREAU SUCCESS STORY OF THE MONTH



Russell Stapp, big home builder of South Bend, Indiana, discovered that public acceptance of houses equipped with G-E equipment was "definite and immediate."

The very first morning it was opened for inspection, the Stapps' "Blandings Dream House" was sold. Twentyseven better-class Stapp houses, all featuring the G-E Way of Living, were sold before construction. Coming: 25 to 30 more Stapp G-E Dream Houses!

Let General Electric Home Bureau help make your next project a success story! Write to Home Bureau, General Electric Company, Appliance and Merchandise Department, Bridgeport 2, Connecticut.

You can put your confidence in-

GENERAL ELECTRIC





1001 USES ABOUT THE JOB

Everywhere you turn there's a job for Paine Hanger Iron that will help you to conserve labor and reduce your costs. This simple, yet amazingly versatile product can be bent or twisted to fit your exact needs. It can be used for hanging pipe, cable, conduit and numerous other items. It can be used for strengthening construction. Hanger Iron may be installed with nuts and bolts, screws or nails. It is 3/4" wide and 20 gauge in 10' zinc-plated coils. Perforated with holes for 1/4" bolts on 1/2" centers. Reduce your construction costs ask for Paine Coiled Hanger Iron from your supplier today. **Electrical Conduit**

THE PAINE COMPANY

Lap Joints



Publicity-

(Continued from page 220) monthly payments on a \$7,000 loan, typical of the greater Los Angeles area.

A 25 year loan at 4 per cent, the maximum amortization under FHA and GI financing, requires a monthly payment of \$36.95, exclusive of taxes and insurance; at 30 years the payment would drop to \$33.42; at 35 years to \$30.99, and at 40 years to \$29.26.

The same story containing all the same facts, is easily prepared with different leads. The following three leads were used with the same story as the one in the box, but written differently to be submitted to different publications. Note how slight changes add individuality to each story.

First rewritten lead:

"Longer term mortgages than now available for GI and non-veteran home buyers was urged by Spiros G. Ponty, immediate past president, Home Builders Institute, to make it possible for more persons in all income groups to purchase a home of their own.

"Mr. Ponty, who is Institute treasurer for 1949 and a staunch advocate of lower-priced homes, praised the current thinking of lenders toward lengthening the loan repayment for amortization period to more than the current average of 20 year mortgages."

Second rewritten lead for the same story, prepared for a different newspaper:

"Lower monthly payments through longer term mortgages should be keystone of the national home ownership program, believes Spiros G. Ponty, immediate past president, Home Builders Institute.

"Institute treasurer for 1949 and a staunch advocate for lower-priced homes, Mr. Ponty praised the current thinking of lenders toward lengthening the loan repayment or amortization period to more than the current average of 20-year mortgages."

Still a third lead was written for the same story:

"To provide homes for more persons in all income groups, longer term mortgages are needed than are now available under GI and FHA financing.

"So says Spiros G. Ponty, immediate past president, Home Builders Institute, a staunch advocate of lower-priced homes."

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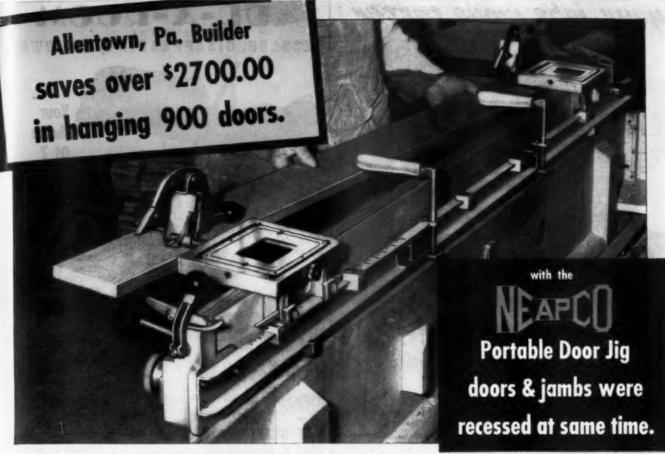
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Read how Mr. Schneider made these savings on one job!

He says:



Mr. Schneider inspecting a door.

"...here's my experience with your Door Jig... on my present project ... we have completed 900 doors. According to records of cost, actual savings are more than \$3.00 per opening. My carpenters agree your device does an excellent job preparing doors and jambs for hardware. Hinges match perfectly, are in line. Have had no hinge-bound doors; refitting after hanging has been eliminated.

"I have been in the construction business for 40 years; have tried other devices, all of which I have discarded. The Neapco Door Jig is a practical device, proved to be a wise investment."

(Signed) Gottlieb Schneider, Gen. Contractor Allentown, Pa. Copy of Mr. Schneider's letter on request.



View of the Tremont Apartments, Inc., #608 F. H. A. Rental Housing Project, Allentown, Pa. . . . the job on which Mr. Schneider has made these substantial savings.

Features of the Neapco Portable Door Jig:

- Speeds Installation.
- Easy to set up.
- Simple to use. Big savings with tubular locks.
- Left or right hand doors (7' long, 13/4" thick).
- Standard size hinge templates to 4½".
- Eliminates costly cut and try.
- Prevents edge splitting.
- Precision, Speed, Economy on every job.

Send this coupon for details

NEAPCO PRODUCTS INC., DEPT.A, POTTSTOWN, PA. Send me without obligation, further information about the new Neapco Portable Door Jig.

NAME

ADDRESS

NEAPCO PRODUCTS INC., POTTSTOWN, PA.

your jobs move faster



EXCEPTIONAL PORTABILITY



for fast moving to fast spotting on the job. Perfect balance and low center of gravity assure fast, safe towing. Hitch is easily made. Tow pole is detached by simply removing a pin. One man can spot it.

MAXIMUM OPERATING CONVENIENCE



for fast operation at the end of the day as well as the start. Grouped controls swinging through short arcs cut operator fatigue. Skip clutch, brake, water valves and discharge controlled without moving from one spot.

OVER-ALL HEIGHT . . .



only 87 inches with skip up and 721/2 inches with skip down . . . permits working in restricted areas and allows for plenty of headroom for parking in garage or other buildings.

PLUS rugged, long-lasting construction, accurate water system, fast, thorough mixing, streamlined "shimmy skip" that gets all the batch into the drum fast, chain drum drive, outside pivoted discharge chute and many other time-saving, profit-making

For all the facts, send for your free copy of Bulletin No. 480. Chain Belt Company, 1689 West Bruce Street, Milwaukee 4, Wis.



CONSTRUCTION MACHINERY

CHAIN BELT COMPANY of Milwaukee



THE BESSLER DISAPPEARING STAIRWAY CO. Akron 5, Ohio 1900 E. Market St.



WHAT? Attempt to shoot billiards blindfolded? Not if W you're "playing for keeps"! The same holds with buying a pump. Don't buy a pump blindly. Look for this familiar A. G. C. Rating Plate. It takes the guesswork from pump buying . . . assures that the pump meets these capacity standards for self-priming Centrifugals. And now more than ever this A. G. C. rating plate means new and higher performance at the same or even greater heads as formerly. And remember, only the pumps made by the following carry this Rating Plate.



SEND FOR THIS USER'S MANUAL

Forty pages packed with useful information. Answers all questions on pump application. Write any of the companies listed below:



CONTRACTORS PUMP BUREAU

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC. CONSTRUCTION MACHINERY CO

BARNES MANUFACTURING CO.

CARVER PUMP CO. H. & E. MANUFACTURING CO. CHAIN BELT CO.

THE GORMAN-RUPP CO. THE JAEGER MACHINE CO.

NOVO ENGINE CO. RICE PUMP & MACHINE CO. Milwaukee & Wisconsin STERLING MACHIMERY CORP.
KANSAS CITY, MO.
WORTHINGTON PUMP & MACH. CORP.

Here's the Low-Cost Flooring to give you a lifetime of wear...

Today when every dollar counts, you'll find Mar (I) CO asphalt the the most economical of all applied types of floor coverings!



's factory-waxed

LONGER LASTING

Over 150 million square feet of MA•TI•CO installations the country over are proving their endurance to wear under the most rugged conditions.

INSTALLS QUICKLY

Made to Federal specifications, MA•TI•CO is precision finished to make for a perfect-fitting job. Cuts down on installation time. Can be laid without disruption of normal store or plant operation.

EASY TO CLEAN

Daily dusting and an occasional mopping and waxing is all you need to keep your MA•TI•CO floor clean and beautiful. MA•TI•CO is odorless, sanitary, safe...will not wear slippery with use.

SAVES ON REPLACEMENTS

Should excessive abuse or accidents necessitate repairs, new MA•TI•CO tile units can easily be inserted. Expansion of a floor, as in remodeling, is just as simple with the addition of matching tiles.

BEAUTIFUL . . . COLORFUL

A range of 27 MA•TI•CO colors . . . both plain and marbleized . . . offer limitless design possibilities only possible in tile types of flooring. Thru-and-thru colors can't rub off.



FREE! Full-Color Literature Showing Complete Sample Tile Line and Design Patterns Write to: Mastic Tile Sales Corp., Dept. E, 153 W. 57th St., New York 19, N. Y.

AA-TI-CO ADVERTISING NOW APPEARING IN LEADING MAGAZINES

URROUGHS CLEARING HOUSE ... PROGRESSIVE GROCER ... BUILDING SUPPLY NEWS ... RETAILING ... RUG PROFITS



119 W. 40th Street - New York 18, N.Y.

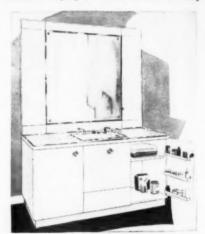
COUPON TODAY!

New Designs Offered In Combination Units

REFRESHING new designs in lavatory-vanity combinations are offered by the Formica Co., 4514 Spring Grove Ave., Cincinnati 32, Ohio, Under the trade mark, "Vanitory," these designs will be furnished to Formica fabricators who will offer



HANDY step-up is built into this Vanitory



VANITORY Design in five-in-one unit



ORIENTAL effect in new Formica unit

the units in their own designs as well as build custom units as specified by architects and builders.

These designs feature a rimless wash bowl surrounded by a dressing table surface of Formica. There are more than 40 color patterns suitable for this bathroom application.

Some of the designs include pic-(Continued to page 232) avafered ring Ohio. d to offer

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HOPE'S Lok'd Bar FACTORY SASH



Paper Art Company, Indianapolis, Indiana

Allen & Allen, Architects

HOPE'S LOK'D BAR FACTORY SASH has weathering flanges rolled integral with the bar section, doing away entirely with riveted weathering strips which, inviting rust and corrosion, are the outstanding weakness in ordinary light factory sash.

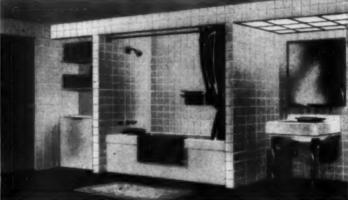
The exclusive Lok'd Bar Joint unites vertical and horizontal muntins with twice the strength of common types of sash joints. These features assure lasting weathertightness, protection for workers and lower cost for upkeep for the life of the building.

Write for Hope's Lok'd Bar Factory Sash Catalog

HOPE'S WINDOWS, INC., Jamestown, N. Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS





42,000,000 people are waiting to get into

this alumitile bathroom!

Metal Tile Products, Inc., Hastings, Michigan

Please send me Architect's Kit and sample tile FREE

Name_

Business

Address

City

State

A homeowner's dream come true! A shining bathroom finished in a

lastingly beautiful aluminum wall covering. Hastings Alumitile is making dreams come true all over the country,

because it makes possible the easily cleaned surfaces

and the permanent beauty of wall tiling at its best on any building budget. Made in a choice of 14 decorator colors, permanently baked onto

aircraft aluminum, it can't rust, peel, or craze.

For complete information see

Sweet's catalog or mail the coupon.



Metal Tile Products, Inc., Hastings, Michigan

Eliminate

COSTLY HAND SANDING

Pays its way quickly on new or refinished work—
 SANDS CLOSED CORNERS CLEAN—fine on dry wall construction—plaster patches—treads and risers—cabinets—

A PENINSULA TOOL

JITTERBUG SANDER COMPANY, INC.

Write for 10-Day Free Trial Offer





Give your customers the best. WOODLIFE means protection against decay, termites—and moisture absorption, the cause of warping, shrinking, swelling and checking. A few pennies spent for WOODLIFE treatment assures lifetime protection and customer satisfaction.

WOODLIFE is Time-Tested . . . used by leading woodwork mills since 1935.

Better Homes
and Gardens

Specify WOODLIFE protection, NOW!

Write for literature and name of nearest Dealer.

Protection Products Mfq. Co.
Research Laboratory and Plant KALAMAZOO, MICH.

Wallace F. Bennett New President of NAM

WALLACE F. BENNETT, Utah manufacturer, is the new president of the National Association of Manufacturers recently elected by the Association's board of directors. Ben-



WALLACE F. BENNETT

nett, a "small" manufacturer, is president of Bennett's Salt Lake City Paint and Varnish Company.

Educated in Salt Lake City public schools, Bennett attended the Latter Day Saints High School and the University of Utah, where he received a B.A. degree in 1919. His education was interrupted by World War I, in which he served as a 2nd lieutenant of infantry.

Bennett is a member and past president of the Salt Lake Rotary Club, and a regional vice president of the NAM. Also, he is a director of the Utah Manufacturers Association, and chairman of its public relations committee.

Announce New Sales Head

R. S. KING, president, The Philip Carey Manufacturing Co., has announced that J. J. Smiley, Jr., has been appointed commodity manager for the sale of Miami Carey fans,

Smiley is a graduate of the University of Illinois and has had wide experience in the building materials field. He was formerly assistant advertising manager for Carey.

E. S. McKay Named New Department Head of G.E.

E. S. McKAY of Schenectady, N.Y., has been named advertising and sales promotion manager of the General Electric Co,'s air conditioning department, with headquarters at Bloomfield, N. Y., it is announced by H. B. Donley, marketing manager of the department.

Mc Kay was formerly assistant to the manager of employee and community relations in the G.E. apparatus department. A native of Platte, · S. D., he joined G.E. in 1933.

New Head of Materials Handling Institute

J. H. W. CONKLIN, sales manager of the Industrial Truck Div., Clark Equipment Co., Battle Creek, Mich., was elected president of the Materials



J. H. W. CONKLIN

Handling Institute at the annual election of officers held in Philadelphia at the Third National Materials Handling Exposition. He succeeded S. W. Gibb, Yale & Towne Manufacturing Co. sales manager.

Other officers elected for 1949 are: First vice-president, J. G. Bucuss, Acme Steel Co.; second vice-president, J. P. Lawrence, The American MonoRail Co.; secretary-treasurer, R. Kennedy Hanson. 249.

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Marlite, beautiful and practical, provides the extra value that makes a new home more appealing to the discriminating buyer, adds the modern touch that makes an older home more attractive, too. Plastic-finished Marlite wall and ceiling panels are easily installed, easy to clean and eliminate refinishing. In kitchens, bathrooms, in every room where colorful, practical interiors are needed, Marlite means extra value for your customers, added profits for you. Make the most of Marlite . . . in homes—and in commercial buildings, too!

FASY TO INSTALL—Measure it, cut it, spread Marsh Adhesive on it, and Marlite's ready to install. There's no trick at all, creating beautiful interiors with modern Marilte.

EASY TO HANDLE—Wall-size panels, big enough to cover a generous area, yet easy to handle, quickly and easily installed using only regular carpenter's tools.

EASY TO CUT AND FIT—Marlite is durable, but you'll have no trouble cutting and fitting it to the most exacting specifications. Complete installation instructions included in every shipment.

AND ECONOMICAL, TOO! The cost of materials for a complete Marlite installation has increased less than 10% since 1940. That's why Marlite means added value for your customers . . . added profits for youl

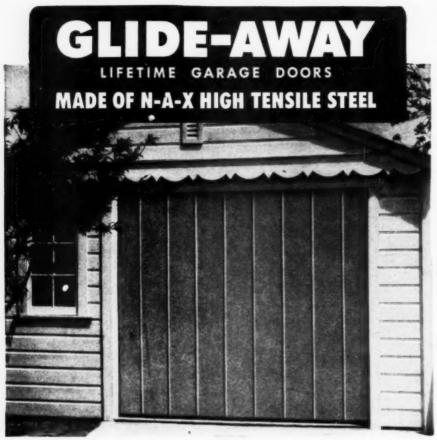






MARSH WALL PRODUCTS, INC. 403 MAIN STREET DOVER, OHIO

It's Easy to Sell the Door Home Owners Want!



THE ONLY DOOR WITH ALL THESE ADVANTAGES:

"Glide-Away" is the only overhead-type garage door made of N-A-X High Tensile Steel for 50% greater resistance to distortion and denting, and 4 to 5 times greater resistance to rust and corrosion. And look at the other features: One piece, all-welded construction for extreme rigidity. Edges are completely flanged to eliminate all sharp surfaces. Full recessing with only 2½" of headroom required. Space-saver, jamb-type hardware that provides smooth, gliding action without sacrificing interior space. Distinctive jamb-aligner and weather seal that assures perfect closure even for out-of-plumb openings; and easily-adjusted, spring-balanced mechanism that provides effortless operation. Yes, "Glide-Aways" are just what home owners want, because they're built for a lifetime of trouble-free service, good looks and utmost protection.

DESIGNED FOR QUICK, FOOLPROOF INSTALLATION

"Glide-Aways" are so simple to install that anyone can do it quickly and without special tools. Standard sizes include the popular 8' 6" x 7' door for wide, late model cars, in addition to

CITY

8' x 7', 8' x 7' 6" and 8' x 8'.

Double size is 16' x 7'. Special sizes available up to 16' wide by 8' high. Prices are competitive.

Stamping Products and Mfg. Co. Steel Door Division 628 E, Forest Ave., Detroit 1, Mich.				
Please send detailed information on "Glide-Away" Garage Doors. I am a Builder, Dealer, Prospective Buyer				
NAME				
ADDRESS				

STEEL DOOR DIVISION STAMPING PRODUCTS AND MFG. CO.

628 E. FOREST AVE. . DETROIT 1, MICH.

Dahlberg Heads Board Of Building Foundation

BROR G. DAHLBERG, chairman of the board of directors of the Celotex Corporation, Chicago, has been elected chairman of the board of gov-



BROR G. DAHLBERG

ernors of the Building Officials Foundation. He succeeds Joseph P. Wolff, commissioner of the department of buildings and safety engineering of the city of Detroit.

The foundation has also announced the election of Harold Boechenstein, president of Owens-Corning Fiberglas Corporation, Toledo, Ohio, and Henry Bohnsack, president of International Steel Company, Evansville, Ind., to the board of governors.

New Designs Offered

(Continued from page 228) ture mirrors, built-in laundry hampers, twin bowls, step-ups for children, towel storage, unique medicine chests, and concealed plumbing. One five-in-



EFFECTIVE use of small space is achieved

one unit contains a picture mirror, towel shelf, chest-sized drawer, wash stand, and dressing table.

At the floor level of one unit a handy step may be pulled out for the children to step up on. When the step (which also serves as storage space) is pushed in, it fits flush with the front of the unit.

BILL THE BUILDER SAYS:

COST STRATE SHEET

Sharpen your pencil
Sharpen show you why

ALWINTITE'S YOUR WINDOW BUY!"

"You can figure it out in a jiffy-the way I did.

"Just add up the *real cost* of your windows-not the first price, but the final, *installed* cost.

"You've got to figure on paint costs . . . weatherstripping . . . hardware . . . labor costs for applying all this and assembling the sash and frame.

"WITH ALWINTITE THE COST OF ALL THIS IS EXACTLY ZERO!

"That's why I say-Alwintite's your window bay!"

Bill's right, mister. Alwintite is the top quality aluminum window and the real cost is no more (frequently less) than for ordinary windows. Alwintite is delivered ready to install ... quickly, easily! It's completely pre-assembled with built-in, stainless steel weatherstripping all around. There are no "extras" to buy, no adjustments to make, no painting now, or ever.

Alwintite not only helps you build faster...build better... it also help you sell! Alwintite is the window that offers your customers the eye-appeal, durability and trouble-free maintenance they're looking for!

You can get Alwintite in 25 stock sizes, 8 styles, with screens and storm sash to fit. Also mullions for multiple window arrangement, picture and basement windows. For complete details write Dept. A-4, THE ALUMINUM WINDOW CORPORATION, a subsidiary of General Bronze Corp., 604 Stewart Avenue, Garden City, N. Y.



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CUT COSTS WITH

WP-578 Knot Sealer and Economy Siding

For example, you can save up to 40% on siding costs by using WP-578 Knot Sealer and Western Pine Economy Siding. What's more, the life of the paint is lengthened.



Legend—Knots don't show through painted surfaces when WP-578 is applied first. At left, above and below, "Before and After" pictures of a painted knot where WP-578 was used. At right, leaching of resins makes knot visible through paint where ordinary sealer was used. Three coats of paint were applied to each piece after respective sealers were used, and both pieces were then exposed to ultra violet light for 528 hours.



Sealed with WP-578

with ordinary sealer

With WP-578 Knot Sealer, building construction costs can be definitely lowered because this product makes sound tight-knotted lumber entirely suitable for many painted and enameled wood surfaces.

Today there are 68 paint and varnish manufacturers between the Atlantic and Pacific coasts which now mix and distribute prepared solutions of WP-578. If you are unable to purchase it, a list of approved manufacturers near you may be had by writing to the Western Pine Association, Department 41-B, Yeon Building, Portland 4, Oregon.



These are the Western Pines
Idaho White Pine Ponderosa Pine
Sugar Pine

These are Associated Woods

Larch • Douglas Fir • White Fir Engelmann Spruce • Incense Cedar and Red Cedar • Lodgepole Pine

Well manufactured—thoroughly seasoned—carefully graded by all Association member mills



Low Cost

Light Duty

Why handle freight the slow, costly way — by hand! You can now handle light freight electrically in loads of 1,500, 2,000 and 2,500 pounds with the new Otis Self-Supporting Elevator. Designed for a maximum rise of 35'-0" it is suitable for any 2 or 3 story commercial or institutional building. It is inexpensive to install because its self-supporting design requires no penthouse, no overhead supports, no building reinforcing. OTIS ELEVATOR COMPANY, 260 11TH AVE., NEW YORK 1, N. Y.





of MEASURING ACCURACY!

Mechanics and craftsmen will welcome Brite-Blade's accuracy as well as its flashing white blade which simplifies reading. The chrome plated, zinc alloy case will take the toughest punishment with ease. You can get a Brite-Blade at all good hardware stores or building supply houses—or if you prefer, use coupon.

TRADE		MA MA	RK
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2			
Meleteletel	MANA	NP STEEL TAPE RULES	11
MASTER PI	ILE MFG. CO	INC	F-4
201 Main S	treet, White	Plains, New York	
Please si	end me		
Please s	306W-	6 ft. Brite-Blade-\$1.75	
Please s	306W— 308W—	8 ft. Brite-Blade-\$1.90	
	306W— 308W— 310W—	8 ft. Brite-Blade—\$1.90 10 ft. Brite-Blade—\$2.25	
My check (306W— 308W— 310W—	8 ft. Brite-Blade-\$1.90	
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Power-Sharpens



Keep your power plane cutter sharp on the job. You can resharpen the cutter in a matter of minutes, sharp as new. Just set the plane in the bench bracket, remove the cutter arbor and replace it with the grinding arbor and wheel. Mount the grinding attachment on the plane and switch on the power.

3 to 5 times faster than hand planing ... Doors, screens, storm sash, transoms ... any edge at all ... can be planed faster than the best hand planing with a Stanley-Carter Power Plane. And better!

Smoother, even against the grain . . . The combination of real speed . . . 18,000 r.p.m. . . . and patented spiral cutter gives perfectly smooth cuts at any depth setting, regardless of grain direction.

Convenient adjustments... Depth of cut is adjusted before or during work just by turning dial on front of plane. Fence can be adjusted in a second for any bevel cut up to 45 degrees.

Here's the hurry-up tool you need to compete in costs, in time, in quality of work. Get the whole story on the J-5. Write for folder. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle St., New Britain, Conn.

THE GREATEST NAME IN TOOLS



Reg. U.S. Pat. Off.

HARDWARE • HAND TOOLS • ELECTRIC TOOLS • STEEL STRAPPING

FOR THE LARGE INSTALLATION

THE ONLY SECTIONAL STEEL BOILER THAT CAN BE

taken through a 2 FOOT DOOR!



WATERFILM BOILERS

Throughout the country, many apartment houses, industrial plants and other large buildings have found vast savings were made possible by the Waterfilm Sectional Boiler because it could be installed with a minimum of time and labor. And its patented construction (incorporating the exclusive zig-zag water tube) insures quick heat and economy! Waterfilm, in models and sizes for small homes as well, is recommended by leading architects and builders. Write for free literature and newspaper mats. NATIONALLY ADVERTISED.



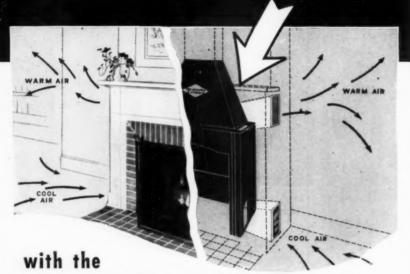
The heart of the Waterfilm Boiler is the zig-zag shaped water tube.



MADE FOR AUTOMATIC FIRING WITH OIL, STOKER OR GAS

WATERFILM BOILERS, Inc.
A Division of L. O. Koven & Bro., Inc.
154 Ogden Ave., Jersey City 7, N. J.





HEATILATOR*

Fireplace

Builders and contractors all over America have found that a Heatilator Fireplace unit adds extra value to a house... makes it easier to sell. You have persuasive sales points when you tell the prospective home buyer that *this* fireplace gives extra comfort, extra utility, will not smoke... circulates heat.

You'll find, too, that a Heatilator Fireplace is easier to build. The unit is complete from floor to flue—smoke dome, throat, downdraft shelf and damper are built-in parts. This assures correct fireplace construction on every job, eliminates the possibility of costly repairs or rebuilding, guarantees owner satisfaction.

Accept no substitute. See the Heatilator unit at your building materials dealer—or write for further details to . . .

HEATILATOR, INC.

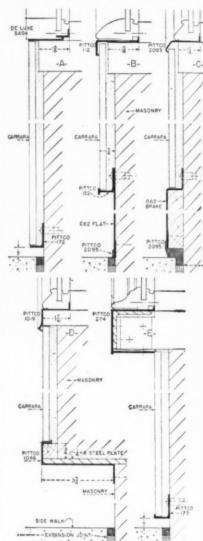
351 E. Brighton Ave. Syracuse, N. Y.

"Heatilator is the registered trade mark of Heatilator, Inc.



Tips On Installing Structural Glass

THE MOST vulnerable area of an all-glass store front is the bulk-head. This base of the show window is the target for everything from children's roller skates to expanding sidewalks. There are no cure-all methods of eliminating the potential hazards in this area, but correct planning can minimize the actual damage that can be done. Engineers for Pittsburgh Plate Glass Co. have worked out five practical solutions for saving bulkheads and speeding installation.



FIVE methods of installing bulkheads

These solutions are shown in detail in the accompanying drawings, and have been made practical with the use of special metal members. In each the structural glass facing has been raised above the sidewalk, thus taking it out of the actual "danger zone." The basic construction lends additional protection to the glass.

In Sections "A" and "E." this has been accomplished by provid(Continued to page 240)

HEATILATOR FIREPLACE

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THIS HOME IS ESPECIALLY DESIGNED FOR ...

RETAIL LUMBER DEALER PARTICIPATION



FREE DISPLAY AND SALES HELPS

- FULL COLOR 21" x 26" POSTER (Home design, floor plan, interior sketches)
- ENLARGED FULL COLOR REPRODUCTION SUITABLE FOR FRAMING
- SKETCH PLAN SHOWING MANY DETAILS
- NEWSPAPER MATS

Write to Red Cedar Shingle Bureau for these today

THE CERTIGRADE NATIONAL HOME IS YOUR PROFIT HOME FOR 1949

This "Home of the Year" featuring the retail lumber dealer is a nation-wide promotion. On April 9 a full page ad in color will appear in the Saturday Evening Post... another will appear in a June issue... and a third message in the Post is planned for early autumn. This home will also be publicized in Farm Journal, Small Homes Guide, and other magazines. Capitalize on this BIG retail lumber dealer campaign."

THE SATURDAY EVENING POST

This is a signal profit opportunity for you and your contractors! The Certigrade National Home is being built as a demonstration home in many areas, and plans are under way for many more of them in the next two or three months. Our national advertising is timed to support your local activity.

Blueprints are available with basement or without basement and with utility room for either northern or southern construction. Complete blueprint working drawings can be obtained by *retail lumber dealers only* from National Plan Service. Price \$7 per set. Material lists,\$2.

Sponsored by
Red Cedar Shingle Bureau
5510 White Building, Seattle 1, Washington
Metropolitan Bldg., Vancouver, B. C. Canada

Designed by National Plan Service

1315 West Congress Street, Chicago 7, Illinois

For Quality Construction Modern Reinforced

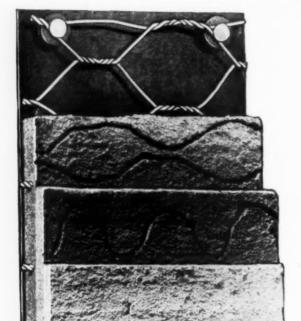
It makes sense to Build with Stucco when you gain these selling advantages

GOOD CONSTRUCTION

Modern stucco consists of 3 layers of concrete reinforced with steel... a siding that adds structural strength and requires no maintenance for the life of the building. This is quality construction that enhances your reputation as a builder of good homes.

LOW COST

Modern stucco is applied quickly and easily—saves labor. And, compare the price of Portland Cement with other siding materials. There's your answer to why stucco insures big savings. There's your answer, too, to the volume demand for low-cost, quality homes that sell quickly and profitably.



Actual section of stucco wall applied the Keystone way. Note how the use of this system deeply embeds the Keymesh Reinforcing in the scratch coat.

See how the KEYSTONE SYSTEM

Yes, the Keystone System of Stucco Application means stronger, low-cost, modern stucco that helps sell homes.

The basic component of the Keystone System is Keymesh Reinforcing. Stucco siding applied to Keymesh is on to stay, to give lasting beauty, and to reduce construction costs.

Keymesh Open Mesh Reinforcing is made of tough cold drawn steel wire, heavily galvanized to resist rust. It is available from your dealer in easy-to-work-with 3' x 150' rolls.

For Stucco and Overcoating: Use Keymesh, 1½" hexagon mesh, 17 gauge wire, or 1" hexagon mesh, 18 gauge.

For Interior Plaster and Base for Tile: Use Keymesh 1" hexagon mesh, 20 gauge wire.

KEYSTONE STEEL

PEORIA 7,

Modern, Durable, Low-Cost Stucco calls for

at Lower Cost Build with CONCRETE STUCCO

ATTRACTIVE TO BUYERS

Modern stucco gives you these important selling features:

- 1 Lasting beauty—not only beautiful when new, but retains its attractiveness throughout the years.
- 2 Durability modern stucco is strong, long lasting and crack-resistant.
- 3 Ease of maintenance—no periodic painting, unaffected by rot and termites.
- 4 Fire resistant for family protection.
- 5 Good insulation against dust and cold air.
- 6 Highly suitable for all extremes of weather.
- 7 Ideal for new homes as well as for overcoating older homes.





of Stucco Application Insures Durability and Economy

The Keystone System Means Better, Stronger Stucco—In the Keystone System of Stucco Application, Keymesh Reinforcing is deeply embedded in the scratch coat. Keymesh is furred out ½" to ¾" away from the wall. This furring, plus the open mesh design of Keymesh wire, allows the plaster to flow through—and around—the steel reinforcing. As a result, stucco reinforced with Keymesh possesses greater strength and permanent crack-resistance. This has been proved on thousands of stucco homes built with Keymesh Reinforcing.

The Keystone System Means Easier, Faster, Smoother Lothing—Lathers who are using the Keystone System

of Stucco Application testify to the fact that it simplifies and speeds up their job—and also results in smoother lathing. Keymesh Reinforcing unrolls flat, goes into place flat, lays flat. It forms around corners easily. Besides, Keymesh has no rough surfaces that cut lathers' hands.

The Keystone System Helps Insure a True Wall—Plasterers find that it's easier to get a true wall when they apply stucco on Keymesh Reinforcing because Keymesh is furred out from the wall. Thus the thickness of the scratch coat is predetermined. Plasterers know that an even scratch coat makes succeeding coats go on smoother, quicker and easier.

Ask Your Dealer for More Information on the Keystone System of Stucco Application—he can supply you with complete details and specifications—and he has Keymesh Reinforcing in any quantity you need.

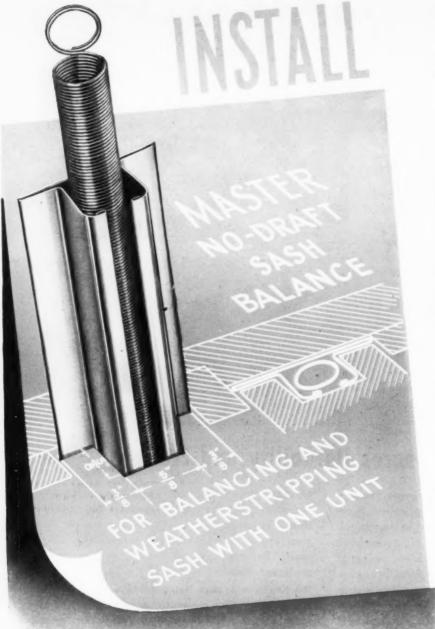
& WIRE COMPANY

ILLINOIS

KEYMESH



REINFORCING FOR STUCCO AND OVERCOATING



The jobs finished for the work of one ... and both done right. Perfect window exacts and better weather pretection in one piece of equipment. Entirely eliminates pulley is cords, weights and box frames. Master No-Draft Sash Balance—permanent, sumesprayen and trouble-free—saves labor, time and maney. Can be installed quickly and easily. This is the modern way to equiferrational and weatherstrip all deable

Acting as a perfect weatherstripping for both sides of a window, Master No-Draft Sash Balance will automatically adjust itself to any amount of shrinkage or expansion in the wood.

The unit is made of highly tempered, rust-proof metal for long enduring service. Correctly tensioned springs give upper and lower sash perfect balance and easy fingertip operation.

Runways are completely metal covered and require no painting, (of course, cross members should be installed). Double contact prevents any rattle when windows are open.

The Master No-Draft Sash Balance gives a neater appearance to all windows and makes a more weather-tight window. Nothing to wear out or cause trouble.

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Effective Display Booth Utilizes Mahogany Panels

TO EFFECTIVELY display its wares, the Elliott Bay Lumber Co. integrated its product in a cleverly planned booth. Builders, when viewing the booth, can see just how this firm's mahogany panel can be used in home interiors.

Panels in the booth are of Sliced Ribbon Grain Baylaun White Lauan Philippine mahogany.



Panels in matched squares applied over a fireplace in the booth were cut from one 4 x 8 panel of Sliced White Lauan. Different colors are obtained by the difference in light reflection as the grain is turned.

All mouldings in the booth are of Baylaun Tanguile. The finish is natural, consisting of one coat of sanding sealer and two coats of clear lacquer. No filler was used. An appealing effect was achieved by using a Bennett-Ireland Flex-screen, complemented by the use of polished brass knobs on the cupboard doors and drawers.

Installing Structural Glass

(Continued from page 236)

ing a ½-inch clearance and supporting the glass on continuous metal mouldings. This takes the uncertainty out of fiber expansion strips commonly used between the structural glass and sidewalk.

Sections "B" and "D" provide toe room, a feature that is gaining in popularity. The toe space can vary to meet requirements, Section "C" involves a metal water table or base. Even here, the wood core has been raised to reduce rotting and swelling from exposure to moisture.

Of the five sections shown, "E" and "D" should prove most effective. In "E," the glass is recessed, thereby removing it from direct exposure. The recess can be increased by extending under side of sill with sheet metal. The jutting moulding in "D," reinforced with steel plate which, incidentally, should be laid with the masonry, will serve as a guard by absorbing shocks which otherwise would be inflicted on the edge of the glass.

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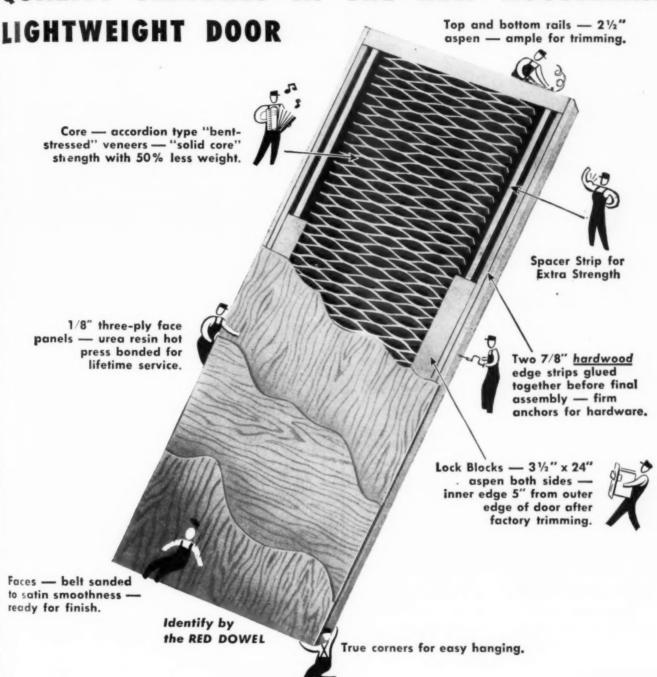
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The new Roddiscraft Housemart Lightweight Door shows the same craftsmanship and attention to detail that has made Roddis a symbol of quality for over halfa-century. The Housemart Door with the accordion veneer combines solid core strength with 50% less weight. Priced for the residential market.

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Appliance Division • Springfield 2, Mass.

Savings and Loan League Sees Good Building Year

LOWER CONSTRUCTION costs, increased labor productivity and a continued high rate of residential building were predicted for 1949 by the United States Savings and Loan League in a new quarterly review published for the first time March 18.

The review has been compiled and written by the League's economist, Dr. Arthur M. Weimer, dean of the Indiana University School of Business, and Norman Strunk, vice president. In its analysis of the housing outlook for 1949 the League asserted that the rising volume of savings assures an adequate supply of mortgage money and may ease the terms of home financing.

Weimer and Strunk maintained that recent declines in real estate activity have resulted in more conservative financing practices and in consumer resistance to high prices of houses, but they added that both declining construction costs and easier financing terms will stimulate housing demand.

The League said that continuation of rent controls will sustain a high demand for houses for sale, pointing out that controls have restricted the construction of new rental dwellings.

The publication said that if present trends continue, insurance companies and savings banks will play a larger part in home financing during 1949 than last year, while banks and trust companies will not participate quite so actively. Savings associations will continue to play an important role. In 1948 they accounted for 31 per cent of the home credit extended.

Gerholz Reports Decline In Overcrowded Homes

DOUBLING UP by married couples in the same household is less than it was in 1940, according to Robert P. Gerholz, Flint, Mich., chairman of the Realtors' Washington Committee of the National Association of Real Estate Boards and a past president of NAHB.

Speaking before a subcommittee of the Senate Banking and Currency Committee, with Calvin K. Snyder, secretary of the Realtors' Washington Committee, Gerholz based his remarks on surveys by the Bureau of the Census.

"The proportion of married couples living doubled up—as extra families in other households—has actually declined more than seven per cent since 1940," Gerholz stated. "In other words, one of every 15.5 couples in 1940 did not have its own household, whereas, at the beginning of this year, only one of nearly 17 married couples did not have its own household."

This improvement is of much greater significance if we measure it from the peak of the housing shortage in April, 1947, he said, when one of every 12 couples was living in a home it could not call its own. "That represents a 26 per cent decline from the proportion of double-ups we had less than two years ago to the proportion we now have."

Gerholz cited this and other examples of the improved housing situation to refute the "dark and gloomy housing picture" painted earlier for the subcommittee by Raymond M. Foley, Housing and Home Finance Administrator, in his attempt to justify the need for a public housing bill.

1949.

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When a House Sale Hangs in the Balance THE WESTINGHOUSE WASTE-AWAY TIPS THE SCALE

Many a new home sale has been won or lost in the kitchen. Mrs. House-Hunter is a hard lady to please. One sure way to impress her with your house is to include a Westinghouse Waste-Away, electric garbage disposer. She'll appreciate the "living convenience" you are offering. And the Westinghouse name will reflect the quality of the whole house.

Installing a Waste-Away requires no more time or materials for the drain line than for the sink alone. Hooking it in is a quick, simple operation. And by installing one, you eliminate the need for a garbage chute, incinerator or garbage can enclosure.

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quality appliances can be built into a house during construction more economically than they can be installed at a later date. When you point this out to prospects and explain

this out to prospects and explain that they will be included in an easy-to-pay-for packaged mortgage plan, the sale is in the bag.



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Henry W. Collins New Celotex Director

HENRY W. COLLINS was elected a director of the Celotex Corp. at the company's annual meeting in Chicago in February. He fills a



HENRY W. COLLINS

position created by an increase in the size of the board.

Collins, whose home is in Glenview, Ill., joined Celotex in 1926 when he became a sales representative in the New York territory. He has served as manager of the Chicago Sales division and in the same capacity for the New York division. In April, 1948, he became executive vice president of the company.

Recommendations For Eaves Trough, Conductor Pipe and Fittings Revised

REVISION of the "Simplified Practice Recommendation for Eaves Trough, Conductor Pipe and Fittings" has been approved according to an announcement by the Commodity Standards Division of the National Bureau of Standards. The revision will bear the serial number and title R29-49. Eaves Trough, Conductor Pipe and Fittings.

The Recommendation concerning rain carrying equipment for buildings was first issued in 1925, and was re-affirmed ten times between 1925 and 1937. It was revised for the first time in 1939 and again in 1942. The current revision was first proposed in 1946.

Aluminum and stainless steel products have been added to the recommendations. The Recommendation now includes sizes and gauges of trough, pipe and fittings, and gutters made of galvanized steel, sheet, copper, aluminum and stainless steel.

Mimeographed copies of the revised Recommendation may be obtained from the Commodity Standards Div., National Bureau of Standards, Washington 25, D.C.



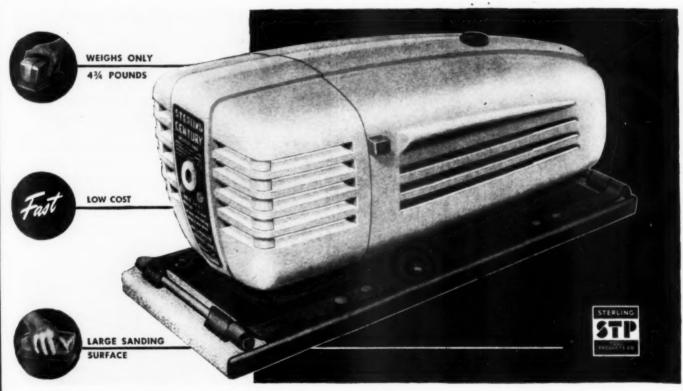
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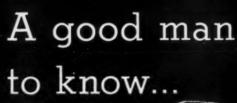
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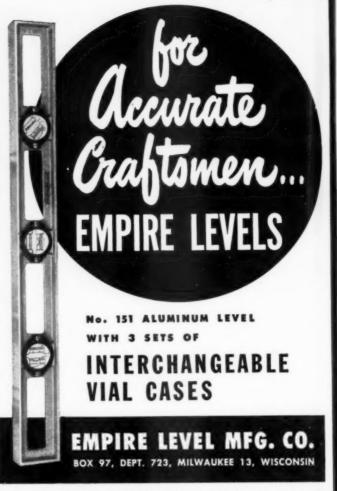
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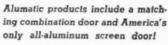
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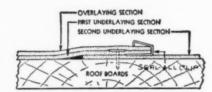
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Dealer Review

The President's Column

(Continued from page 164)

toward reducing costs. Inevitably, somehow, we as a nation, must go back to the theory of our forefathers: that a man must work for his living, and for the support and welfare of his family. In my humble opinion, this must be done by businessmen, working as individuals, and through our Associations. As businessmen we must quit just paying lip service to private enterprise and asserting our love of personal freedom. We must cease being dumb, we must become articulate, and start selling our story to other businessmen, to the nation, and to the

The siren song of the Marxists is lulling many into acquiescence and if we don't sell our system, we will be sold down the river.

NRLDA Booklet

(Continued from page 165)

pamphlet, "Something for Nothing," reprinted from a Saturday Evening Post article by Dean Russell.

The third pamphlet, entitled "The Bill of Rights," recommended particularly for high school students and civic organizations, discusses the background of the first ten amendments of the U.S. Constitution, the original Bill of Rights.

This material may be obtained from National Building Material Dealers Service Corp., 302 Ring Building, Washington, D.C.

Texas Meeting to be Filmed In Colored Pictures

A 20-minute motion picture in full color with sound will be produced at the Lumbermen's Association of Texas annual convention by Wm. Cameron & Co., it has been announced by Frank Stevens, manager of the wholesale and manufacturing operations. The meeting will be conducted in Dallas April 24, 25 and 26 in the Fair Park Agricultural Building.

This will be the fourth annual convention of Texas lumbermen recorded in sound motion pictures. Entitled "Convention Highlights of 1949" and produced in cooperation with the Association by Aylin Advertising Agency, the motion picture presents on-the-spot reporting of all major events of the convention.

Moisture Destroys Insulation Values

"Moisture increases the rate of heat transfer through a material, because water, which fills the pores or voids, conducts heat more rapidly than air."
. . . Third edition of "Insulation," by Paul D. Close as Technical Secretary of Insulation Board Institute and former Technical Secretary of the American Society of Heating and Ventilating Engineers.

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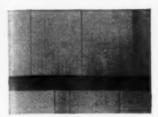
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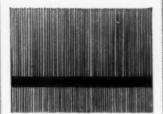
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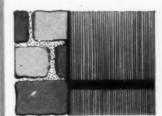
oth is

Pa.

Customers have a choice of mooth-surfaced stained shingles with visible joints or



Grooved surfaced shakes which have invisible joints and resemble handsplits.



They are excellent for use with other building materials.



Application is easy as ABC. Ship-lap nailing guide is the only 'extra" tool needed.



Prestaining assures the lumber dealer of his profit on color treatment as part of the sale.



Carton packages make stained shingles and shakes easy to store, clean to handle, easy to deliver.

14 reasons why STAINED SHINGLES and SHAKES are easy to sell

- ★ They are economical to buy and economical to apply.
- ★ They are pre-stained in a wide selection of colors to
- save on building cost. * They are available for fast delivery from any manufacturer listed below.
- * They build a home of long-lasting beauty and minimum upkeep cost.

Project home builders are enthusiastic about prestaining because it eliminates the costly work of prime coat painting. This feature alone has accounted for the sale of thousands of squares of stained shakes to project builders. Note the other sales features shown on this page.

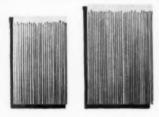
WRITE DIRECT TO ANY MANUFACTURER LISTED BELOW for full particulars regarding the vast market poten-tial of this quality roof and sidewall material.



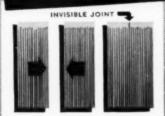
eowners get greater value, dollar for dollar, with stained shingle and shake sidewalls.



Distribution is convenient to dealers everywhere. Write to manufacturers listed below.



16" and 18" lengths provide wide choice of weather exposures to make project homes look different.



Edges of shakes are true parallel. Joints are tight and blend with the grooved texture.



Every shingle and shake home is an advertisement. One home will lead to the sale of another.



Architects approve and recommend cedar shinales and shakes. Sweet's file has 8 pages of data.

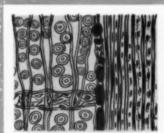


ASSURANCE OF QUALITY

Rigid grading requirements for the manufacture of stained shingles and shakes have been established by the Stained Shingle and Shake Association. Precision re-butting and jointing, proper drying and packing, minimum widths, and guaranteed coverage per square are maintained by the members of the Association. Address inquiries to the Association at 835 Central Building, Seattle 4, Washington, or write direct to any member listed below.



Stained shingles are excellent material for roofs as well as for sidewalls. A real roof value.



Cedar shingles and shakes have millions of microscopic insulating cells to resist heat transmission.

ASSOCIATED MANUFACTURERS

 Creo-Dipt Company, Inc., North Tonawanda, New York • Everett Shingle & Shake Company, Everett, Washington • Capilano Timber Company, Ltd., Vancouver, British Columbia • Perma-Products Company, Cleveland, Ohio • West Coast Stained Shingle Co., Seattle, Washington • Portland Shingle Company, Portland, Oregon • Wood Beautifiers, Seattle, Washington • Colonial Cedar Co., Inc., Seattle, Washington • M. R. Smith Lumber & Shingle Co., Seattle, Washington • Canadian Forest Products, Ltd., Vancouver, British Columbia • The Robert McNair Shingle Co., Ltd., Vancouver, British Columbia

Amer

Are You Sure You Don't Owe

By Charles F. Mayer

Uncle Sam Withholding Tax



Yes, every job is better when you use AZPHLEX DUOTONE—because it gives every job the premium quality and premium looks that you want it to have, without running the flooring cost sky-high. Whether it's a multi-unit apartment, a shopping center, a public building or a private house, AZPHLEX DUOTONE gives you.

. EXCEPTIONAL BEAUTY - in your choice of 10 AZPHLEX colors.

● LIFETIME DURABILITY — 1/8" AZPHLEX equals

LIFETIME DURABILITY — 1/8" AZPHLEX equals 3/16" regular asphalt tile.

CLEAR, SHARP COLORS — pigments and marbleizing through-and-through — won't wear off or become "muddy".

FAST INSTALLATION — AZPHLEX DUOTONE is 1/8" or 3/16" by 12" x 12", with 6" x 6" die-cut centers. Dimensions are always uniform.

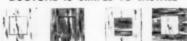
LOW COST — Despite its premium quality, AZPHLEX DUOTONE costs very little more than resultar asphalt tile — and is worth a great

regular asphalt tile — and is worth a great deal more!

deal more!

Before you design your asphalt tile floors, get your AZPHLEX-AZROCK dealer to show you DUOTONE. In addition to its low-cost, long-lived good looks, this unique floor in AZPHLEX is extremely resistant to animal, mineral and vegetable greases, alcohol, alkalis and mild acid solutions... has a very smooth, highly polished surface that offers maximum resistance to indentation by foot traffic, rolling or standing loads. It's the tile that's tops on or standing loads. It's the tile that's tops on

DUOTONE IS SIMPLE TO INSTALL



COMES LIKE THIS LAID LIKE THIS



For complete information about Duotone, see



"WHY SURE," most builders would reply if they were asked whether they owed the government any withholding or social security payment, "Why sure, I'm sure I don't owe anything. All the work on my houses is being done by contractors or subcontractors. If anyone owes these taxes, they do."

But is the matter as simple as that? Definitely, it is not.

The determination whether a worker is the builder's employee, or whether he is the employee of the contractor or the subcontractor is a very complicated affair under the present law. It is governed by regulations of the Bureau of Internal Revenue, which, in my opinion, are excellent examples of "doubletalk," if I ever saw any.

For instance, Section 402.204 of Regulations 106, relating to the taxes imposed by the Federal Insurance Contributions Act (Social Security), provides in part as follows:

Every individual is an employee if the relationship between him and the person for whom he performs services is the legal relationship of employer and employee.

In other words, it begs the entire question. In effect, it says, "You are, if you are, if you are." A great help, that is to a conscientious builder who sincerely desires to do right by his Uncle Sam.

I doubt whether a Philadelphia lawver could make anything of this noncommittal gibberish. Certainly a poor-country-boy, Texas lawyer can't get very far with it.

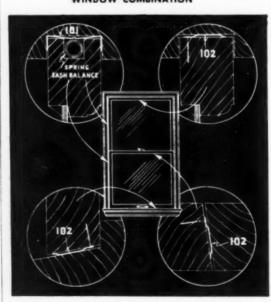
All of us know that if we are employers, we are liable for the federal tax, but how to determine whether we are really employers, or whether our contractors are the employers is what really drives us loco, or at least brings on stomach ulcers.

Section 402.204 of Regulations 106 goes on:

Generally such relationship exists when the person for whom services are performed has the right to con-(Continued to page 256)

HETTINGER'S





Thousands of dealers are now getting their TRIPLE SEAL requirements from these jobbers and many others

American Sash & Door Co. Kansas City, Mo.

E. E. Bach Millwork Co. Minneapolis, Minn.

Bardwell-Robinson Co. Fargo, N. D.

Builders Wholesale Supply Co.

Carr & Moehl Co. Des Moines, Iowa W P. Fuller Co.

Portland, Oregon Houston Sash & Door Co.

Indiana Wholesalers, Inc. Evansville Ind

Rock Island Lumber Co. Buffalo, N. Y.

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Texas Sash & Door Co. Fort Worth, Texas Whitmer-Jackson Co.

Many profitable trade areas still We welcome dealer and jobber inquiries

SASH BALANCES AND SPRING BRONZE METAL WEATHERSTRIPPING Complete Unit Carton Packaged - Any Size \$3.50

SEE YOUR LUMBER DEALER THE WEATHERPROOF PRODUCTS CORPORATION

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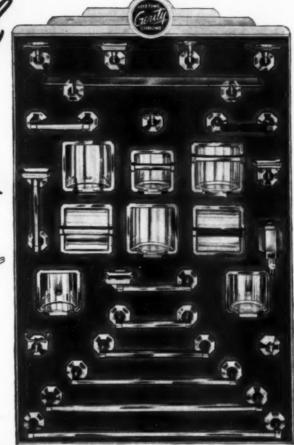
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Use the right appeal to Sell more fathroom accessories



He appeal A man wants to know

how it works and who's behind it. Tell him how this chrome won't flake or wear off because it's tougher, heavier-backed by Gerity's reputation with big auto makers for the very best in

chrome plating. Show him the self-centering

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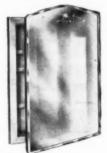
Gerity patent.

She appeal wants the right accessory, whether it's a flower in her hair or a towel bar in her bathroom. Catch her eye bar in her bathroom. Caten her eye with this brightly gleaming chrome that's so easy to keep clean. With the smartly modern design with all screws concealed. all screws concealed.

P.S. Builders can make good use of these sales points in selling new homes.

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ther Turnover with



Gerity Medicine Cabinets also turn eye-appeal into buy-appeal.

EYE - CATCHING DISPLAYS, TOO!

Write for complete catalog and price list.



Gerity-Michigan CORPORATION

Adrian, Michigan







SAVES UP TO 40% IN REPAINT COSTS

No wonder Architects and Builders are swinging to Devoe One-Coat House Paint for exterior repainting. This new, but thoroughly use-tested Devoe paint is designed for its job—to give full protection and a better-appearing job at a substantial saving over conventional two-coat work. It has twice the hiding power of ordinary house paint—levels beautifully—and dries to an enamel-like gloss that is fume-resistant and self-cleansing.

FHA Approved For 2-Coats on New Work

TRIAL OFFER TO ARCHITECTS AND BUILDERS ONLY

You or your painter can take this coupon to nearest Devoe Agent—buy one case, 4 one gallon cans, of Devoe One-Coat White House Paint, use according to directions, and if not entirely satisfied after applying first gallon return remaining 3 gallons and receive full credit for all 4.

OFFER EXPIRES MAY 15, 1949

Devoe & Raynolds Company, Inc., Dept., AB-5 787 First Ave., New York 17, N. Y.

DEVOE PAINT

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How to be <u>Sure About Costs</u> When You Estimate a Building Job

THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

Do you get that creepy feeling about your estimates? Why take a chance when you can be sure! Just multiply by our simple factors to determine your labor and material costs. The Tamblyn System is simple, fast, accurate, complete and dependable!

YOU MAY SAVE MANY TIMES ITS LOW COST IN ONE USE!

In order to get your share of profitable building contracts, you must be able to figure jobs fast and accurately. You must be sure your estimate is just right—low enough to get the job—high enough to give you a reasonable profit.

USED BY SUCCESSFUL CONTRACTORS FOR OVER 40 YEARS!

Many of the largest and most successful contractors in the United States and Canada—thousands of them—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

TEST THE TAMBLYN SYSTEM IN YOUR OWN OFFICE WITHOUT OBLIGATION Send the coupon below for your complete Tamblyn System. Examine it in the privacy of your own home or office for 10 days. Try it on new jobs—check it against completed jobs. There is no obligation unless you keep it.

SEND NO MONEY—TRY IT FOR 10 DAYS FREE!
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Builder Dave Markham Discovers that

New Homes Take on Greater Value When You Add

HOTPOINT All-Electric Kitchens



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"TODAY'S HIGH HOME prices look lower—when you install Hotpoint Kitchens," says Dave Markham, well-known builder in Seattle, Washington. "The entire new home appears a much greater value when equipped with a Hotpoint Kitchen. Home buyers are kitchen-conscious and Hotpoint's reputation as the pioneer of electric kitchens is a sales clincher!"

ENTHUSIASTIC REPORTS like that from Mr. Markham are coming in from builders and architects straight across America! Everywhere, the building industry is finding that a Hotpoint Kitchen adds that extra measure of value which puts the sale over. Financing can be handled easily in most states by including cost of house and kitchen in a "package mortgage."

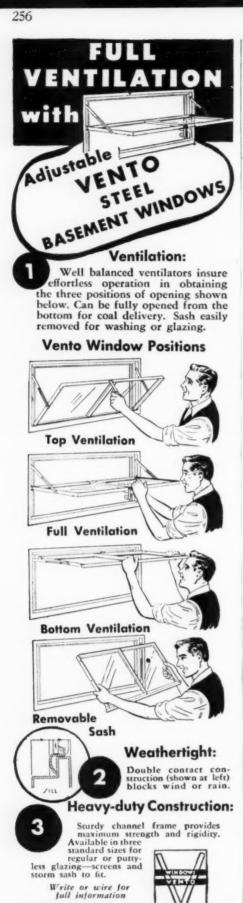
weestigate this Plan for giving your new homes extra sales appeal. Consult your Hotpoint distributor or write to Hotpoint Inc., (A General Electric Affiliate) 5600 West Taylor Street, Chicago 44, Illinois.

Everybody's Pointing To

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PIONEER OF THE ALL-ELECTRIC KITCHEN

RANGES . REFRIGERATORS . WATER HEATERS . FREEZERS . DISHWASHERS . DISPOSALLS . . . CLOTHES WASHERS . DRYERS . IRONERS . CABINETS & SINKS



O STEEL PRODUCTS CORP.

247 COLORADO AVENUE

BUFFALO 15 N. Y.

Withholding Tax

(Continued from page 252)

trol and direct the individual who performs the services, not only as to the result to be accomplished by the work but also as to the details and means by which that result is accomplished. That is, an employee is subject to the will and control of the employer not only as to what shall be done but how it shall be done. In this connection, it is not necessary that the employer actually direct or control the manner in which the services are performed: it is sufficient if he has the right to do so. The right to discharge is also an important factor indicating that the person possessing that right is an employer.

Wait a moment. Maybe we're getting somewhere now. Let's see. If I get a contractor to hire the workmen, and if I have no control over how they work, and if I don't hire or fire any of them, then the contractor must be the employer, and I certainly cannot be liable for the tax.

Yet, in many cases governed by the above factors the builder has been held to be responsible!

This, in spite of the language of Regulations 106, which states:

Generally, physicians, lawyers, dentists, veterinarians, contractors, subcontractors, public stenographers, auctioneers, and others who follow an independent trade, business, or profession, in which they offer their services to the public, are independent contractors and not employes,

and, as a corollary, it adds:

An individual performing services as an independent contractor is not as to such services an employee.

Fair enough, we'll go along on that. And we like this also:

In general, if an individual is subject to the control of another merely as to the result to be accomplished by the work and not as to the means and methods for accomplishing the result, he is an independent contractor.

But here is the catch. It doesn't matter how honest and sincere you are about establishing the relationship of builder (in yourself) and independent contractor (in your contractor); it doesn't matter what you call each other—you can still be tripped up.

Put more formally, in the language of Regulations 106, we learn that:

If the relationship of employer and employee exists, the designation or description of the relationship by the parties as anything other than that of employer and employee is immaterial. Thus, if such relationship exists, it is of no consequence that the employee is designated as

(Continued to page 260)

DO....

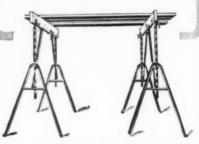
ALL OVERHEAD WORK This easy, low-cost way!



"Trouble-Saver"

Adjustable

STEEL TRESTLES



SAFE! STRONG! ECONOMICAL!



• Details of the quickly-adjustable 'Trouble-Saver' Steel

Builders, contractors, maintenance men and others save time, labor and material with "Trouble-Saver" Adjustable Steel Trestles. They're unequalled as a safe, sure, low-cost method of handling all overhead work under a wide variety of conditions.

Write for new catalog and complete information.

SIZES - SPECIFICATIONS, ETC.

Size No.	Low	High Point	Number of Adjustments	-						
2	16"	22"	4	71/3	to	73/4				
3	2'	3'	5	8	to	9'				
31/2	21/2"	31/2"	5	81/2	to	91/2				
4	3'	41/4"	6	9	to	101/4				
6	4'	6'	9	10	to	12'				
8	51/2"	8'	11	111/2	to	14'				
10	61/2"	10'	15	121/2	to	16'				
12	7'	12'	19	13	to	18'				

THE STEEL SCAFFOLDING CO., INC.

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Near with vitre For limited budgets

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WHAT PEOPLE WANT and what you can give them at reasonable cost are one and the same... when you come to Case plumbing fixtures.

By installing Case you give them dependable operation, safeguard health, and prevent costly emergencies. You provide the newest in design-in fixtures that retain their gleaming surface beauty because they're vitreous china. No chipping, marring or cracking to fear—and almost no work preserves that wanted "new bathroom" look.

The cost of Case quality fixtures is entirely in line for moderate-priced homes today. They're designed to hold down installation costs too, and they fit easily into unusual layouts.

Why not refresh your acquaintance with Case designs at your nearest distributor's showroom? For name and address, see your Classified Telephone Directory. W. A. Case & Son Mfg. Co., Buffalo 3, New York. Founded 1853.

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AQUA-CHROME LAVATORY

This popular squarebasin Case fixture has ample shelf space, built-in soap dish, anti-splash rim, chromium-plated brass trim. Wall hung or with chrome legs or china pedestal.

CAMEL WATER-SAVER* CLOSET

TRADE MARKS REGISTERED

Neat, modern appearance and thorough, quiet flushing with minimum water consumption. Free standing, vitreous china construction and top-quality mechanical fittings make this a Case "luxury" closet at low cost.

Vitreous China Plumbing Fixtures

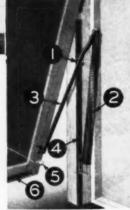
Patent 2378139

USE OVER THE TOP' No. 80 Jr.

TO HOLD COSTS DOWN



Now light-weight garage doors can be fitted with low-cost equipment to bring "overhead" convenience to home owners everywhere. "Over-the-Top" Set No. 80 Jr. is designed specifically for doors under 150 pounds... accommodates openings up to 8' wide and 7' high. Special features include: 1. automatic opener; 2. powerful spring for self-lifting action; 3. rigid angle iron lifting arms; 4. steel weather stripping; 5. positive lock; 6. angle iron brace to prevent warpage. Write for free descriptive catalog.



Close-up showing simplicity of operating mechanism, which means less cost and easy installation.

THERE'S AN "OVER-THE-TOP" SET FOR ANY SIZE GARAGE DOOR

Type of Hdwe.	Stock No.	Width	Height	Pounds Wgt. of Door
Light Weight Series	80 Jr.	7' to 8'	6'6" to 7'0"	100 to 150
	74	7' to 8'	6'6" to 7'3"	100 to 150
	178	7' to 8'	6'8" to 7'3"	150 to 250
	75	7' to 8'	7'4" to 8'0"	100 to 150
	78	7' to 8'	7'4" to 8'0"	150 to 250
Medium Weight	781	7' to 8'	7'4" to 8'0"	200 to 300
Series	93	8' to 14'	6'8" to 7'3"	150 to 250
	94	8' to 14'	7'4" to 8'0"	150 to 250
	782	8' to 16'	6'8" to 7'3"	200 to 300
	783	8' to 16'	7'4" to 8'0"	200 to 300
	716	8' to 10'	9'1" to 10'0"	200 to 250
	716	8' to 13'	8'1" to 9'0"	200 to 275
Heavy	716	8' to 16'	6'6" to 8'0"	200 to 300
Series	718	8' to 14'	9'1" to 10'0"	180 to 375
	718	8' to 16'	8'1" to 9'0"	210 to 425
	718	8' to 18'	6'6" to 8'0"	240 to 47
Extra	912	9' to 14'	11'1" to 12'0"	300 to 600
Heavy	912	9' to 16'	10'1" to 11'0"	335 to 650
Series	912	9' to 18'	9'0" to 10'0"	375 to 720

Write for free illustrated catalog on "Over-the-Top" Door Equipment on Complete Wood and Aluminum Door Units.

FRANTZ

GUARANTEED BUILDERS HARDWARE

FRANTZ MANUFACTURING CO., STERLING, ILLINOIS

it's NEW it FOLDS it SELLS.

the RON-DEL aluminum awning!

- HEAVY-GAUGE
- SOLID BRASS
 FITTINGS
- BAKED ENAMEL COLORS
- . INSIDE CONTROL
- . EASY INSTALLATION
- · FITS ANY WINDOW
- . F.H.A. APPROVED

At last, the awning homeowners have waited for—functional, beautiful, economical. Only the RON-DEL aluminum awning 1016s up—can be raised or lowered from inside or suiside. RON-DEL gives you heavy-gauge

all-aluminum construction, per manent baked enamel colors, solid brass fittings. Convenience and appeal add up to SALES-APPEAL!

> Distributorships available in some territories



RON-DEL, INC. BASTROP, TEXAS





The ORIGINAL and the ONLY Steel Window Well Wall HOT-Galvanized — HAND-Dipped AFTER Forming.

This good-looking, permanent steel wall will not rust, streak, corrode. All surfaces and edges are heavily galvanized by hand-dipping in molten zinc after all shearing, punching and forming is completed.

Lux-Right* Areawalls last a lifetime. No expensive periodic replacements.

Speed of installation of onepiece units saves time and labor. Both Round and Straight Types. Made in wide range of standard sizes to fit any possible opening. Self-flange.

Ideal for side-hill jobs. Throw more light into basement.

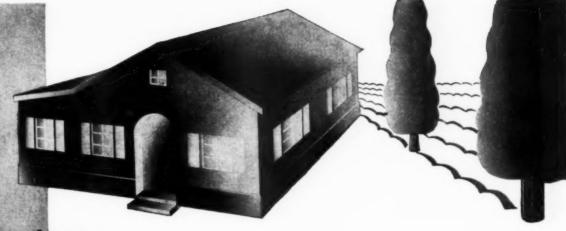
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SAINT PAUL CORRUGATING CO.

Manufacturers of Sheet Metal Products since 1885

South End Wabasha Bridge, AB2, Saint Paul 1, Minn.



Suburban home...

Build it better with

*DURAPLASTIC

...or Industrial Plant

For flexible building design, there's no material like concrete. And for added durability in concrete construction, more and more architects and contractors specify Atlas Duraplastic Air-Entraining Cement. At no extra cost, Duraplastic provides more durability to structural or mass concrete—in foundations, floors, walls, slip-form, gunite, stucco and many other building applications.

Concrete made with Duraplastic cement requires less mixing water for a given slump, yet, it is more plastic, more workable, more cohesive and uniform—easier to finish. Water-gain and segregation are effectively minimized. The concrete is protected against the effects of exposure, such as freezing and thawing weather.

Duraplastic cement provides the proper amount of entrained air for satisfactory performance and requires no added expense

or unusual changes in methods or procedure. It complies with ASTM and Federal specifications. Send for further information to Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, New York.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Des Moines, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Co.

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ATLAS DURAPLASTIC

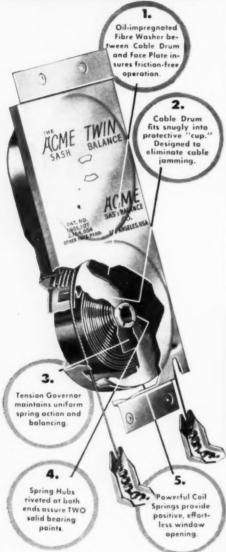
AIR-ENTRAINING PORTLAND CEMENT

MAKES BETTER CONCRETE AT NO EXTRA COST



"THE THEATRE GUILD ON THE AIR"-Sponsored by U. S. Steel Subsidiaries-Sunday Evenings-ABC Network





Only 34" thick. Fits flush in pulley stile. Easily weatherstripped. For use with double-hung wooden windows. Single or double installation. Unconditionally guaranteed. Packed complete with fixtures. Sold only through leading jobbers and hardware and building supply dealers. Write for literature.

Beach Ave Angeles 21, Cali

Withholding Tax

(Continued from page 256) a partner, coadventurer, agent, or

independent contractor.

Thus, no matter how hard you try to do the right thing, you may still be wrong. It is true that the regulations say that:

Whether the relationship of employer and employee exists will in doubtful cases be determined upon an examination of the particular facts in each case.

In practice, however, every case is a "doubtful case." No matter how carefully you try to meet every generally accepted criterion of a builder in your relations with your contractor, you are always in the dark as to whether the contractor's employees are yours or his.

If he pays his withholding and social security taxes as he collects them, well and good. The Internal Revenue Department cannot collect twice. But, if your contractor fails to pay taxes for his employees, you may be liable, even though you had a bona fide contract with the contractor, and even though you had nothing to do with the hiring or firing of the contractor's employees, even though you had no control whatsoever as to how the contractor or his employees performed their work, and even though the contractor had collected the employees' share of the taxes!

And that goes for unemployment taxes also. Section 403.204 of Regulations 107, relating to the excise tax on employers of eight or more under the Federal Unemployment Tax Act, contains substantially the same provisions as those described for the withholding and social security taxes.

Suppose then, that you want to be sure how you stand. What does one do? For one thing, don't expect any real help from any of the local officials of Internal Revenue Depart-

In Dallas, for instance, the head of the withholding tax division is an affable, courteous gentleman, named H. S. Davis. He has had many years experience, and I am sure he could glance at a contract and tell in an instant whether the contractor is a genuine independent contractor. But is Mr. Davis permitted to assist in clearing the atmosphere for builders, no matter how honest and sincere they may be? Ah, no. Only from Washington, the fount of all wisdom, may a ruling be given. Timidly, Mr. Davis will repeat over and over, "Remember, what I tell you is not official.

(Continued to page 264)

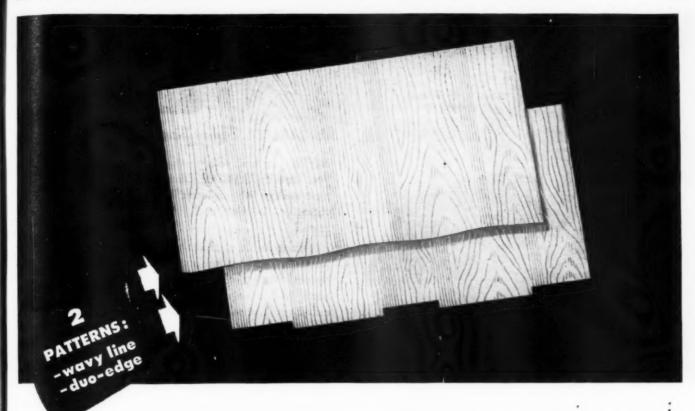


their lawn building project expects outstanding results . . . and to gain this end, you can always rely on Scotts LAWN CARE PRODUCTS. Get the habit of always using Scotts WEED & FEED, SEED and TURF BUILDER. Write today for professional prices and your FREE subscription to Lawn

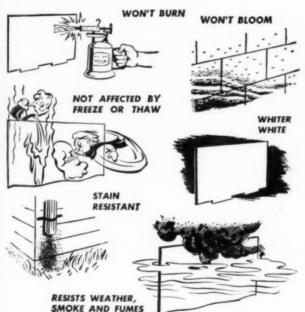
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83 Spring St., Marysville, Ohio also PALO ALTO, California

SCOTTS", "LAWN CARE" AND "TURF BUILDER" ARE REGISTERED TRADEMARKS OF O M SCOTT & SONS CO.



This Siding makes more Selling Sense



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— ceramic surfaced asbestos-cement siding—a famous Carey development is back again, back to help you make more sensible siding sales.

Ceramo is asbestos siding a la mode! It combines the long life and all-around protection of quality asbestos-cement, topped with a glazed surface like that applied to ageless pottery. This ceramic surface means continued beauty that weather won't affect. Maintenance is no problem because Ceramo's surface is hard and flint-like, resists penetration from acids, rusts and other stains.

Pre-war Carey dealers said, "Ceramo makes more Siding Sense." Today you'll say that plus "Ceramo makes more Selling Sense, too!"

Ask your Carey dealer for Ceramo, the ceramic surfaced siding. OR write Dept. AB-4, The Philip Carey Mfg. Company, Cincinnati 15, Ohio. In Canada: The Philip Carey Co., Ltd., 1557 MacKay Street, Montreal 25, P. Q.

GERAMO ceramic face asbestos siding



• Watch your homes sell faster . . . bring a better price . . . when you equip them with Gate City Awning Windows—the windows that ventilate safely on rainy days! Scientifically designed, they provide 100% ventilation, reach out and scoop in fresh air . . . make rooms cooler in hot weather.

Safe, too! Screens and storm sash are installed indoors. Design of window discourages trespassers. No push, no pull, no grunt. Just a simple turn of a small handle operates the sash.

The windows come to you all assembled, Hardware and sash installed. (Screens included!) You just set the unit in place, level it and nail it in.

Get the facts about this outstanding window! Write today to Gate City Sash & Door Co., Dept. B-4, Fort Lauderdale, Florida.

Gate City



The CAPITOL Taper Seal GARAGE DOOR

BOTH you and your customer will be satisfied if you install CAPITOL Taper Seal doors on that next garage job, and you'll recommend them consistently, for they're by far the easiest door to install.

Precision built of finest materials and hardware, parts fit perfectly with minimum labor — tracks automatically line up — four hinged sections and short radius require but minimum clearance — unique rabbet seals section joints.

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Modern Beauty - Balanced Action on Ball Bearing Rollers for "Feather Touch" operation - Complete Taper Seal Weather Protection -Long Trouble-free Service Life - Reasonable Price,

SIZES AV	AILABLE
8'0x6'6,	8'0x 7'0
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UNUSUAL OPPORTUNITY For Builders and Building Supply Dealers

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SPRING TYPE OVERHEAD GARAGE DOOR HARDWARE SETS

These high quality sets are designed for use in better class homes. Made to assure long, trouble-free operation. Easy to install.

Operating spring is of torsion type, mounted above door. No springs, levers or arms project inward from the jamb to interfere with pas-

Spring assembly is complete with drums and shaft made up as one unit. Ball-bearing guide rolls. Vertical rails have slotted holes to per-

mit easy lateral adjustment. Cable drum is tapered to compensate for change in tension as it unwinds.

Designed for one-piece garage doors with opening up to 8 ft. wide and 7 to 8 ft. high, weighing up to 150 lbs. Auxiliary spring available for heavier doors. Requires only 5½ in. headroom. Has chromium-plated handle with cylinder lock built in. Packed in wire-bound crate for easy storage and handling. Available in any quantity.

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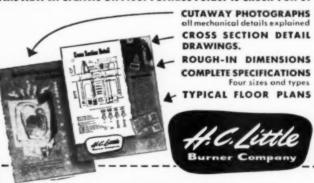
*CHROMEDGE METAL TRIMS ARE MADE ONLY OF HIGH QUALITY ALUMINUM ALLOY, OR OF STAINLESS STEEL.



LEARN HOW the H. C. Little Oil Floor Furnace—the ONLY one that automatically LIGHTS ITSELF—fits into the compact, money saving floor plans of modern small homes—how it increases the SALABILITY of the house by providing TRULY AUTOMATIC oil heat with NO PILOT LIGHT to waste oil or go out.

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This NEW H. C. Little Oil Floor Furnace Folder is Chock-Full of



H. C. LITTLE BURNER CO. Dept. AB4, San Rafael, Calif. Please send me FREE folder on the H. C. Little Oil Floor Furnaces.

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Our Business is_

minimum Withholding Tax (Continued from page 260) Only the Commissioner of Internal Revenue, at Washington, D.C., can **VENTILATORS** KITCHEN tell vou whether the contractor's em-CEILING AND SIDE WALL ployees are really his or yours. Just more red tape. Mr. Davis or his subordinates, who are "on the ground" and closer to the situation. are helpless. The firm desiring the ruling must send the contract to Washington, and then just wait. By the time they get their ruling, the job may be finished and the ruling may already have become a moot issue. What can the home builders do about this situation? For one thing, we should foster legislation giving the local Heads of the Internal Revenue Bureau author-SIDEWALL MODEL ity to give builders immediate and

Torrington blade, one piece cast aluminum shutter, wide overlapping, cast aluminum frame for simple installation in old and new homes, easy to clean, pull chain automatically starts fan an! opens outside shutter. When ordering specify frame or brick. Highly polished cast aluminum grill, 10 inch

5 YEAR GUARANTEE YOUR CUSTOMER DESERVES THE BEST

WHOLESALE PRICE CEILING OR SIDEWALL SINGLE UNIT ... \$27.97 LOTS OF SIX \$23.97

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17 UNION ST. . MERCER, PENNA. Gas Heaters Since 1888 official rulings as to their tax liabilities on their contracts with contractors or subcontractors.

While this result is pending, we should submit all of our contracts to the Commissioner of Internal Revenue, Washington, D.C. The Bureau prefers the original of an actual signed and executed contract. However, they very rarely return the original; so it is suggested that you submit only photostatic copies.

But even while you are doing this, what general factors should you watch for?

Although not entirely conclusive, the Bureau has ruled in many cases that he who furnishes the material is the employer! That, of course, is quite arbitrary, and is contrary to the definition of an employer in most all other fields of law.

The Regulations, in one of the few places where they are specific, warn

Other factors characteristic of an employer, but not necessarily present in every case, are the furnishing of tools and the furnishing of a place to work, to the individual who performs the services.

And here is something that most builders do not know. Suppose vou or your contractor subcontract the roofing to be applied at so much per square. Is the subcontractor an employee or an independent contractor.

He is an employee, says the commissioner, even though you have no control over his employment or his work! Almost without exception, the government has ruled that where a subcontractor engages to do work at so much per square, he is an employee, and you are liable for his withholding and social security taxes, even though his share was never collected by you.

Well, if this situation is so unclear, (Continued to page 268)

American

When t vour pro don't sp job, you Rilco I job com

shipped sion-dril Rilco that no special v crew can

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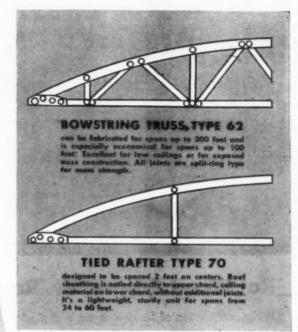
Tough job...low bid...good profit

When the bidding gets close, you can get the job... and your profit, too... if you figure Rilco Trusses. Because you don't spend expensive man-hours building trusses on the job, you just put 'em up.

Rilco Laminated Trusses for shorter spans come to your job completely assembled. Trusses for larger spans are shipped in sections which are accurately cut to size, precision-drilled, with every bolt and connector furnished.

Rilco Trusses have load-bearing strength and rigidity that no on-the-job construction can touch. You need no special workers to put them up. Your regular carpentry crew can do the job in record time.

Next time you're bidding on a theater, warehouse, bowling alley or, in fact, any sort of commercial building, figure Rilco Laminated Trusses and get the job... and the profit. Write us for full details and for the name of your nearest Rilco representative.



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every cellar, at one time or another, will spring a leak if it is not properly THORO-SEALED on the inside at points which cannot be reached from the outside

WATERPLUG to stop the leaks THOROSEAL . to fill & seal the surface QUICKSEAL . . . for a beautiful finish

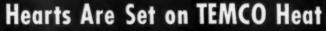
Will take care of your water problems

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WRITE FOR CIRCULAR NO. 144 ON HOW TO KEEP WATER OUT OF YOUR MASONRY WALL

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...yet it costs you LESS!

Patential hame buyers from coast to coast are being pounded with the great national Temco Advertising Program. From the pages of magazines like Saturday Evening Past, Gaod Housekeeping, and The American Hame, an radio, and in newspapers they are hearing about the new Temco Gas Floor Furnace. As a result, they are PRE-SOLD ON TEMCO.

Temco saves you money in two ways. The lasting value of a Temco combined with its unusually low price gives you the smartest heating buy. And Temco's shallow construction—only 25½ inches deep—saves you money on installation. Costly excavation is eliminated with the use of a Temco. From 35,000 to 75,000 BTU capacities

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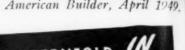
TENNESSEE ENAMEL MFG. CO., DIV. B102 4104 PARK AVE., NASHVILLE 9, TENN.

I would like to know how I can save money while getting more exceent heat with a Temco Gas Floor Furnace.

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In the construction of his new arena and picnic area at Weatogue, Conn., Mr. Anthony Rose is dipping all the 30,000 ft. of lumber in Cuprinol #12 to prevent rot and termite attack. The Cuprinol cost is approximately \$150.



With Cuprinol treatment you have an added feature in bidding for new building and modernization contracts - it gives low cost protection against rot and insect attack. Use Cuprinol #12 for dipping, Cuprinol #10 for on-the-job application by brush or spray. It does not swell the wood, and can be painted over.

Cuprinol is the original Danish naphthenate preservative, tested in the laboratory and proven in the field for over 40 years. It is non-toxic to the skin, and Cuprinol treated wood is harmless to animals, poultry and plants.

Rot-Proofing Adds Quality to Every Job

Cuprinol is being distributed through lumber yards, hardware, paint and marine supply stores. If not available locally, or information is desired as to types and specific uses, write

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For the names of our Installing Distributors

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Amazingly low-priced in quantities

Crime wave sharpens interest of home seekers everywhere in the protection from theft as well as fire provided by Sentry built-in wall safes.

Built into masonry walls, Sentry withstands heat of blast furnace intensity. Dial ring embossed in door, combination is meddle proof. Builtin precision machined lock is welded to one-piece 12-gauge insulated door, cannot be punched.
Perfect hide-away for valuables,

Sentry can't be carted off. Its on-the-spot protection is welcome relief from provoking safe

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These smart modern windows never rust, never rot, never wear out... and they never need painting!

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Made of heavier aluminum extrusions than most windows, with integrally flashwelded joints and corners, they are sturdy and stormtight, yet operate easily and with finger-tip inside controls.

Write for details or consult SWEET'S.

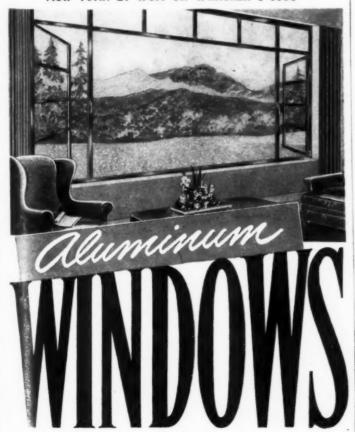


Choice of sturdy Ware Butt Hinges or convenient Extension Hinges.



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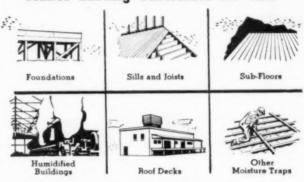
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Where Wood Needs Protection from DECAY and TERMITES

PRESSURE LUMBER

Makes Lasting Customers for You



Here are six common, unsafe conditions where WOLMANIZED* Pressure-Treated Lumber provides protection from wood decay and termites:

- 1. Where excessive ground moisture, rain or thaws cause early decay failures.
- 2. Where wood near the ground is open to termite attacks.
- Where wood is in contact with concrete or masonry.
- Where steam and vapor from industrial processes promote wood decay.
- 5. Where walls, floors, ceilings are subject to condensation from refrigeration.
- Where wood is exposed to moisture in humidified buildings or farm buildings.

Investigations by qualified technologists prove that on installations where decay and termites ordinarily shorten lumber life, WOLMANIZED Pressure-Treated Lumber lasts THREE TO FIVE TIMES LONGER than untreated wood.

Such lasting protection is assured because penetrating preservative solutions are forced, by vacuum-pressure treatment, deeply into the wood fibres of WOLMANIZED Lumber. And, WOLMANIZED Lumber is clean, odorless, paintable, non-corrosive, non-leaching and glueable. Only WOLMANIZED Lumber offers all these extra advantages.

For Better Building— Read This Booklet

Get all the facts on how WOLMANIZED Pressure-Treated Lumber stops wood decay and termites. See how it can help you and your business. Write today for this valuable booklet.

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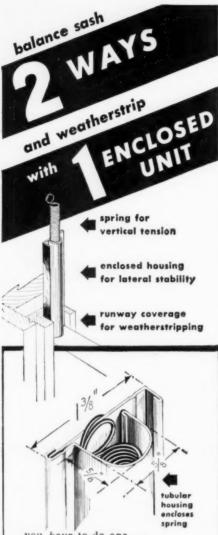
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why not both at the same time!
with the new

ALL-METAL SASH BALANCE AND WEATHERSTRIP UNIT

Make it easy for yourself . . . give your client a better installation . . . better control.

better control.

For the first time, new engineering principles have been applied to give true two-way balance action—making use of both spring tension and metal tension—gaining extreme sash stability. In raising and lowering sash, spring housing compresses against groove for sash stability yet does not hinder vertical movement. Flexible hemmed side ribbing against the stopway gives effective weatherstripping. Spring never shows. It is completely enclosed in a metal housing designed for accurate installation of cross member weatherstrip at head, sill and meeting rail. Use coupon—Write today for complete details.

	ALLMETAL WEATHERSTRIP CO. 2243 North Knox Avenue, Chicago 39, Illinois
	Gentlemen: Please send me complete informa ion and prices.
2	Name
d	Address
	CityState
2	

Withholding Tax

(Continued from page 264)

so beclouded, so mysterious, can we avoid any pitfalls at all, or must we always walk in darkness?

To a great extent, I regret to say, you will never be sure as to your actual status until you get a ruling from Washington, in writing, and about a definite, specific contract, which you will have submitted.

Yet there are a few factors we can watch for, on the basis of previous rulings.

For instance, the builder has been held liable for the taxes, as an employer, under the following circumstances:

1. Where the builder furnished the material to his contractors. As stated above, this is not 100 per cent conclusive, but it is one of the strongest factors in influencing the commissioner to decide that you are an employer.

2. Where the builder controlled the hiring and firing of the contractor's employees. Even though the builder never exercised this right, he was considered an employer as long as he had the power in the contract.

3. Where the contractor submitted his payroll to the builder, and the builder issued separate checks made out to each employee, instead of a lump sum to the contractor.

4. Where the contract between the builder and the contractor contained reservations of implied control over not only what work shall be done but how it should be done—even though the reservations were never exercised.

Those are some of the criteria which have been invoked to make a builder an employer. But here are some factors which negative this determination, and have influenced rulings making the contractor an independent contractor.

1. Where the contractor furnished the material as well as the labor for a job.

2. Where the builder agreed to pay a specified sum for the completion of a specified contract—in other words, a "turnkey" job.

3. Where the contractor carried workmen's compensation insurance on his employees.

4. Where the contractor has held himself out to the general public as a contractor. The fact that he advertised in the newspapers as a contractor, or that he was listed as such in the telephone directory, would add great weight to the contention that the contractor was really an independent contractor.

(Continued to page 272)

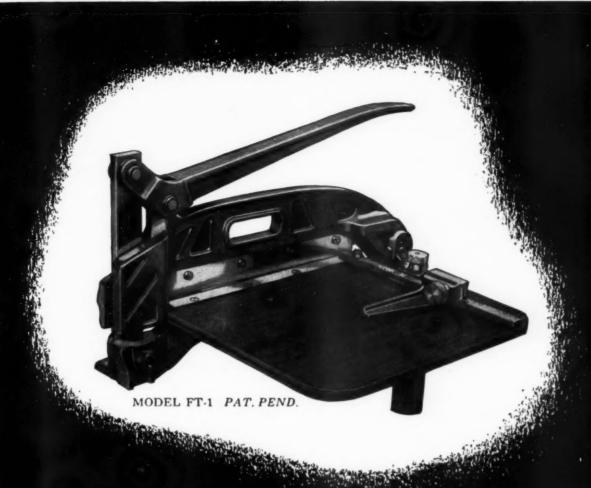




...better 5 ways because —

- Mounts in ceiling directly above stove instantly catches heat, grease and odors as they rise.
- Only an inconspicuous "dripless" ceiling grille is visible, yet unit easily installed.
- 3. Powerful squirrel-cage blower (not a fan!) creates fast-moving stream of air to do job efficiently.
- Because of patented construction which isolates motor from greasy air stream, unit guaranteed 5 years.
- 5. Available everywhere. Stocked by dealers coast to coast.

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You Step Ahead with a J. M. J. Combination FLOOR TILE CUTTER

At last! You need only one cutter for installing all leading types of floor tile, Asphalt, Rubber, Plastic,

Cork and Linoleum. Your inquiry will bring a prompt reply and illustrated folder.

Weighs only 20 lbs.

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DIXON, ILLINOIS.



Home owners and builders alike, are discovering that Vikon Metal Tile offers undreamed of, lasting smartness for walls and ceilings wherever tiles are appropriate. This is true tile beauty at very modest cost, and Vikon tiles are so light in weight that no extra wall strengthening is needed. These are individual tiles made of steel or aluminum, with a face of durable, baked-on synthetic enamel in a choice of 27 fade-resistant colors. Simple as can be to maintain. An occasional coat of Vikon Cream Wax keeps them gleaming bright. Write today for full information regarding the wonders of Vikon Metal Tiles. See coupon below.

- 27 fade-resistant decorator colors and stainless steel
- will not warp, crack or craze
- resists heat and household chemicals
- fire-resistant, waterproof, seals out insects

See our catalog in Sweet's Files

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BUILD greater satisfaction and longer life into your jobs by installing ELKAY stainless steel for better kitchens. Unrivalled surface beauty, superior construction and unbeatable quarantee of ELKAY's Lustertone sink assure your clientele of complete satisfaction. Write for latest information.



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TAILOR-MADE FOR YOUR HOME

The "True Economy" Home Uses a Vitroliner Chimney

The Vitroliner type "E" Flue is a timetested, proven practical, complete chimeney designed to take care of all home heating equipment—used by large national builders and small contractors. Available individually or in any quantity.

- COMPLETELY FABRICATED UNDERWRITERS' LISTED FOR ALL FUELS
- USED IN F.H.A. CONSTRUCTION
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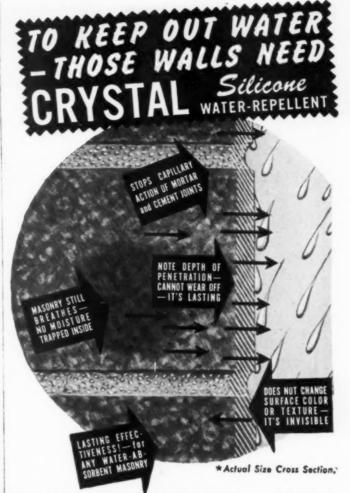
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 WEIGHT—10 LBS. PER FOOT
 IMPROVES HEATING PERFORMANCE

SAVES FLOOR SPACE-2 HOUR IN-STALLATION

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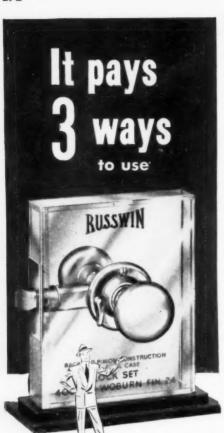


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Brick, stucco, concrete blocks, pre-cast stone is rendered lastingly water-repellent by one application of Crystal. Low cost -

Quickly flushed on with "stucco" brush or with low pressure spray. One gallon covers 100 to 200 square feet.

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TUBULAR LOCKS

Russwin quality is recognized by everyone. The very fact that you chose a Russwin Tubular Lock suggests, to the home buyer, a quality-built house throughout. You've started to close the sale before you open the door!

Installation is easy. You save construction time and money with Russwin Tubular Locks and Latches.

No costly cull-backs for service or adjustment are necessary. Such features as the famous Russwin all-steel rack and pinion construction of the tubular latch assure a lifetime of smooth, trouble-free action.

See your nearby Russwin dealer. See the advantages of this new, improved tubular lockset which he has mounted in a Plexiglas display. Buy the builders' hardware backed by more than a century of experience, and let it build good will for you. Russell & Erwin Division, The American Hardware Corp., New Britain, Conn.



SINCE 1839
DISTINCTIVE
HARDWARE

Withholding Tax

(Continued from page 268)

5. Where the contractor operated as a partnership, the fact that the name of the firm was registered at the county clerk's office, under the "Assumed Names Act," would also act in favor of relieving the builder of liability of an employer.

6. Where the contractor paid his employees by issuing his own checks to each individual.

Remember, neither some nor all of these factors can absolutely determine your liability. They are only guides as to what has been the basis for rulings in the past.

Whether they will affect future rulings in the same manner, only the Commissioner of Internal Revenue, at Washington, can say.

In the meantime, make sure that your contractors and sub-contractors not only collect the taxes they should, but that they actually pay them.

Otherwise, Uncle Sam may be coming around to see you. And you may have to pay tax bill which you were sure should have been paid by your contractor or sub-contractor.

Third Annual Store Modernization Week Scheduled for June

THE THIRD ANNUAL International Store Modernization Show will be held the week of June 19 at Grand Central Palace in New York City, it has been announced by John W. H. Evans, managing director, who conceived and organized the first show in 1946. The dates coincide with Store Modernization Week for which the slogan, "Shop in a Modernized Store," has been given nation-wide emphasis.

Organized for the functions of bringing retailers into direct contact with modernization experts and assembling all the latest store equipment for one exhibition, the Show has become one of the nation's largest trade expositions. Thirteen thousand five hundred persons, representing 24 foreign countries and 45 states, attended in 1948, and fifteen thousand are expected this year. Admission will again be only by invitation, obtainable from exhibitors or Show headquarters, 40 East 49th St., New York 17, N.Y.

The Show will again hold a national competition among the Chambers of Commerce for the "Best Modernized Store of the Year."

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Successors to Shevlin Pine Sales Co.
*Member of the Western Pine Association.

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IT'S NEW! IT'S NEWS!

The evolutionary new conditioning unit

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It's a basic principle of design that makes this new KO-Z-AIRE the talk of the industry. The blower blade assembly is completely surrounded by circular heat exchangers—a bit of engineering wizardry that's amazing in action. The result is a more compact, more efficient winter conditioning unit that's easier to sell to your largest market.



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Factory-assembled . . . Quick 'n easy to install!

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different in design!
Amazing in action!

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You'll be surprised at how little space this new KO·Z·AIRE occupies. It's only 23" wide, 39" deep. Shipping weight is approximately 250 lbs. Automatically fired by gas, has oversize filters.

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 Versatile, re-usable Safway scaffolding permits more efficient work on every job, large or small, and affords maximum protection for the worker. Once erected, the scaffolding serves carpenters, masons and painters, working either separately or simultaneously on different parts of the building.

Safway structures are rigid and sturdy—distribute loads and strains evenly throughout the entire steel framework. Safway carries the approval of the Underwriters' Labora-The all steel construction eliminates fire hazards and other dangers inherent in wood scaffolding, and offers minimum wind resistance.

This tubular steel scaffolding comes in standard units of several types which are quickly assembled to fit the contours of any structure, and may be erected to any height required. Basic units include welded end frames, cross bracing, bridging members, guard rails, ladder sections, etc. No special tools are required—any man can easily handle the job, using the simple coupling pins and studs provided.

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for booklet and name of your nearest dealer. DEPT. 34-4, SOLVAY SALES DIVISION, ALLIED CHEM-ICAL & DYE CORPORATION, 40 Rector St., New York 6, N. Y.



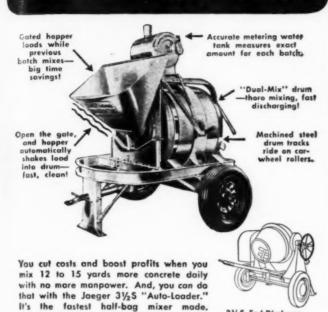
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Mix 12 to 15 more yards a day with JAEGER 31/25 "AUTO-LOADER"



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Carried in stock by distributors from coast to coast. Write for free booklet and name of our distributor near you.



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Detachable Compass when desired 535 Stonewall St. ATLANTA, GA.

HOMASOTE PAYS YOU **BIG BONUSES** protection against DAMPNESS Because Homasote is permanently weatherproof, its use insures a dry house—no musty closets or mildewed walls. protection against DRAFTS By a wide margin, the air infiltration through Homasote is the lowest of all fibre building boards.

When you use Homasote Insulating and Building Board . . . You expect high insulating value; lower fuel costs; a house that is warmer in winter and cooler in summer . . . You expect great structural strength. (As sheathing, for example, Homasote is 272% stronger than horizontal wood sheathing) . . . You know you have the perfect base for paint or wall paper.

No other building board gives you all these qualities plus the three big bonuses above. We invite architects and builders to send for illustrated booklet - giving physical characteristics, performance charts, specification data and application instructions.



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NOISE

Homasote's sound-deadening qualities are instantly sensed.

Both street noises and sounds

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... oldest and strongest insulating and building board on the market

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No head-twisting! No mistakes!

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VERTICAL READING Pull-Push Rules

Vertical marking on these rules makes measuring easier, surer in awkward spots ... 'way overhead or down below, in narrow places, underneath or up through. Rigid for straight measurements, flexible for angles





and curves. Use for inside as well as outside measurements.

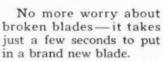
Choice of white blade models or nickel-plated models . . . all with large, clear, lasting numerals. Pocket size case, attractive and durable chromium-

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Two sizes, with either white or nickel blades, 6 ft. and 8 ft.

Save irritation and lost time. Stop mismeasurements. Buy a new Stanley Pull-Push Vertical Read-

> box. Stanley Tools, New Britain, Conn.

> > 6-FT. RULES White blade, No. 346W Nickel blade, No. 345

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HARDWARE . HAND TOOLS . ELECTRIC TOOLS . STEEL STRAPPING

Asphalt Tile Institute Names New Officers

J. P. STIGER of the Johns-Manville Corporation was elected president of the Asphalt Tile Institute at the organization's annual meeting in February at New York City. He succeeds



J. P. STIGER

Julian O. Heppes of the Tile-Tex Company.

Harry A. Hachmeister, president of Hachmeister, Inc., is the new vice president of the Institute, which is a trade and research association whose membership represents about 80 per cent of the asphalt tile flooring production of the country. The new secretary-treasurer is C. J. Christoverson of the Sloane-Blabon Corporation.

Production and shipments of asphalt tile during 1948 exceeded the 1947 output by a wide margin, it was reported at the meeting. The increase was attributed to enormously increased demand due to the high volume of new building, and renovation of all types of structures.

When final figures for the year are compiled they are expected to show that nearly 400,000,000 square feet of this flooring was produced by members of the Asphalt Tile Institute, as compared with 315,852,000 square feet in 1947 and 188,509,000 square feet in 1946.

Eagle-Picher Division Gets New Manager

CLYDE B. LYNDE has been appointed vice-president and general manager of the Insulation Div. of The Eagle-Picher Sales Co.

Lynde has had many years' experience in virtually all phases of the insulation business, including both home and industrial insulation. Widely recognized as an authority on thermal insulation and the merchandising policies of the building industries generally, Lynde was active during the war in the construction of high-octane gasoline refineries and synthetic rubber plants.





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you have been looking for . . . a mixer that can really take it, equipped with a big $4\frac{1}{2}$ -hp. Briggs & Stratton air-cooled engine, and driven through quiet roller chains, cut-tooth sprockets and cut-tooth gears. It has 5.50×16 tires, disc wheels with Timken bearings, and a hinged safety grating with a time-saving bag splitter.

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Premium SHEET METAL ERAYDO for the Better Trade

ERAYDO ALLOY is the ideal sheet metal for your customers who want a "better than average" job.

It is weather-resistant, won't red rust, won't stain, and is easily soldered. Yet, it is moderately priced . . . about midway between galvanized steel and copper.

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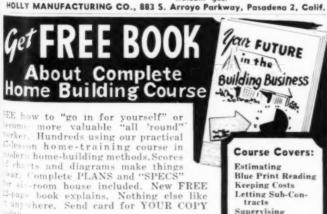


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THE Flush Wall Radio fits in perfectly with today's popular trend to built-in appliances and appointments in the modern home. Architects and builders find it gives that touch of individuality and charm which means added sales appeal.

And homeowners are enthusiastic about the Flush Wall Radio for it enables them to enjoy the convenience of several fine quality radios throughout the house—in kitchen, bathroom, bedrooms, study, recreation room, children's rooms—in addition to their large conventional living room radio.

FLUSH WALL RADIO FEATURES:

- 5-tube AC-DC Superheterodyne Licensed by RCA and Hazeltine.
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 Comes with Steel Box, 6½" x 95%" x 37%"
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- 5. Approved by Underwriters' Laboratories for Built-in Installation. Retail Price. \$34.95 Radio, Model 5P

Panels Extra From \$2.45 to \$4.45





BUILDERS AND DEALERS! Write today for SPE-CIAL TRADE NET PRICES and complete information, etc., to FLUSH WALL RADIO CO., Dept. 4A, 9 West Park Street, Newark 2, N. J.

New Officers Named By Door Manufacturers

THE National Door Manufacturers Association re-elected E. W. Donahue, president of the Wabash Screen Door Co., Chicago, as president at their 22nd annual meeting held in Chicago in February.

Ross D. Scamehorn of the Morgan Co., Oshkosh, Wis., was named vice



E. W. DONAHUE

president; A. R. Tipton, Roach and Musser Co., Muscatine, Iowa, treasurer; and Ormie C. Lance, Chicago, secretary-manager.

Alvin F. Baal, Carr, Adams and Collier Co., Dubuque, Iowa, who retired as NDMA treasurer after holding that position since the organization of the association in 1927, was given a testimonial luncheon. Baal, who was secretary of Carr, Adams and Collier, recently retired from the company after 53 years of continuous service.

LeTourneau Produces 75,000th Control Unit

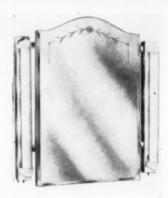
THE 75,000th power control unit was recently produced by the R. G. LeTourneau, Inc., at its Peoria, Ill., plant.

Aiding in completing the unit, a cable control for actuating earthmoving tools towed by or mounted on tractors, were three men who helped produce the 100th power control unit for the firm. Each of the trio joined the company shortly after the Peoria plant was opened in 1935.

Frigidaire Div. Expects More Replacement Sales

REPLACEMENT SELLING may reach half the total sales volume of air conditioning and commercial refrigeration equipment in 1949, according to W. F. Switzer, commercial sales manager of Frigidaire Div. of General Motors.

Switzer, speaking at the Heating and Ventilating exposition, said that he based his opinion on trends which have developed since wartime,



Attention DEALERS, BUILDERS, AND CONTRACTORS

The most beautiful all chrome finish fluorescent medicine cabinet with plate engraved Everlast mirror, all General Electric equipment, plastic caps, Underwriters' approved, retails at \$43.75. This medicine cabine' unit is built for the purpose of saving all wiring and fixtures necessary for the bathroom as it contains all the wiring and switches necessary and also a convenience outlet for electric razor or any other use. Each fixture has a separate switch so that you may light one or two lights as you desire and will provide sufficient light for any bathroom without any extra fixtures. The only thing necessary is to connect the cabinet with the main line. The price of this cabinet is very reasonable and at the same time it covers all the cost of wiring and fixtures for the bathroom.

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FIREPLACES

Lends unsurpassed beauty and charm to homes-old and The modern fireplace that fulfills all modern day requirements used with gas or electricity.

Large variety of attractive models in brick, stone, wood, etc., available.

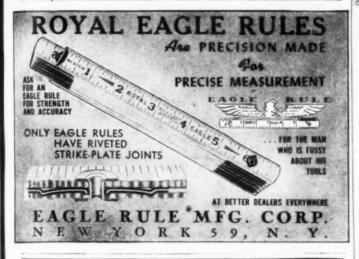
Furnished complete-ready to be installed in hour's time of handy man-shipped anywhere.

DEALERS, BUILDERS and HOMEOWNERS write for catalog and full information.

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NEWEST, greatest time and money saving level yet—12 ways better than ordinary levels—Cuts costly corners in masonry and carpentry building by reducing tedious hours required to plumb. Ken Corner Level plumbs and SQUARES 2 SIDES OF CORNER AT ONE TIME—on windows and doors also face of each brick placed on mortar joint. Plumbs 4 ways at once—the corner, 2 faces, and top surfaces—no need to tap brick on side, end or top. Two aluminum "2" bars form "jig" for each brick and support both horizontal and vertical glass liquid vials containing usual bubbles. Adjustable for plumbing a Batter, or incline, or tapering surfaces. Ken Corner Levels available in four sizes, 18", 24", 36" and 48" long. Priced to pay for itself in a few days—and continue savings for you every day thereafter; the Ken Corner Level saves 50% of the cost in building all corners.

WRITE TODAY for full details—Don't miss this opportunity to cut your masonry and carpentry in building costs!

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FOLEY MFG. CO., 424-9 Foley Bldg., Minneapolis 18, Minn. Send FREE BOOK—"Independence After 40"



*Reference: A.S.H.V.E., 1946 Guide. Pg. 117, Table II; Pg. 119, Table II.

That's right... Insl-Cotton's insulation qualities are so great that only 3 inches will give as much protection from heat or cold as a five-foot thickness of low density brick.

With a "K" value of 0.24 (lower than any other type of insulation on the market today) Insl-Cotton exceeds government specifications for FHA, FPHA, and HH-I-528 specifications. Add to this its extreme light weight, its ease of installation, its harmlessness in handling, its flame-proof and moisture-resisting qualities - and you have a natural to lead the insulation field. Let this superior insulation help you build greater insulation sales and profits!

* Certified No other insulation except flameproof, fire-retarding cotton insulation made under Federal supervision can make this claim. Insl-Cotton contains no second-hand material. Every lot is tested and certified to the U.S. Government.

DEALERS ... DISTRIBUTORS - Some territories still open for competitively priced Inst-Cotton. Write today for details.

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INSL-COTTON DIVISION Taylor Bedding Mfg. Co., Taylor, Texas Gentlemen:

Please send specifications and full information on INSL-COTTON.

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THE ORIGINAL RITE-LOCK for **SLIDING DOORS**

Single assembly easily installed by simple cut-out, even in narrow stiles. No mortising. 3 types fit doors 1^{1} 8" thickness, with a 34" wardrobe type. Latch and thumb button types with



emergency unlocking feature adaptable to either hand. Pin tumbler cylinder in escutcheon is optional. Exterior parts solid brass. Escutcheons measure $4\frac{1}{2}$ " x $2\frac{7}{8}$ ".

MINIMUM BACKSET DEADLOCKS FOR STANDARD CYLINDERS

Can Be Keyed to Any Job



For narrowest extruded aluminum, structural steel and wood stiles. Series 970 Deadlocks for standard cylinders have ¹³/₁₆" backset, 1⁷/₁₆" depth. Fifteen other standard backsets to 134". Series 980 identi-

cal except for 34" dia. pin tumbler cylinder 15/16" backset. Rugged steel and brass construction, armored bolt with 58" throw, bronze or aluminum face and strike. Radius. flat and bevelled faces interchangeable.

TEMPERED GLASS DOOR DEADLOCK

Takes the place of 2 locks. Has single or double bolts and 1 or 2 cylinders. Handle operates bolts in sequence, cylinder locks handle. Designed for and can be installed in any tempered glass door top or bottom channel. any tempered glass door top or bottom channel. 4 sizes: 1-15/16" High x 1-13/32" Wide.

CYLINDER SLIDING DOOR LOCK

Operates by cylinder from one or both sides. Fits all standard cylin-ders with adapter cams furnished.

(specify when using Yale). Solid bronze face, strike & bolt. Heat treated aluminum alloy case. Use your own cylinders and trim. Also used as jimmy-proof lock.

Also — Adams-Rite Solid Brass Sliding Door Flush and Edge Pulls, Surface and Jam Bolts and Ball Latches



Convector Association **Elects New President**

E. A. CLINE of the Trane Co., La Crosse, Wis., was recently elected president of the Convector Manufacturers Association at the group's annual meeting in the La Salle Hotel, Chicago.

Louis D. Mandell of C. A. Dunham



E. A. CLINE

Co., Chicago, was named vice-president, and J. H. Smart. Tuttle and Bailey, Inc., New Britain, Conn., was elected secretary.

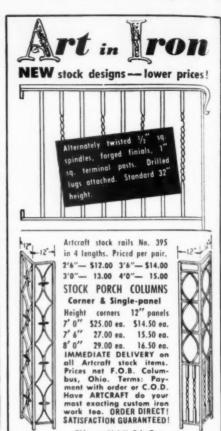
The association is composed of several leading producers of non-ferrous convector radiators. Members include Airtherm Manufacturing Co., St. Louis, Mo.; C. A. Dunham Co., Chicago, Ill.; Fedders-Quignan Corp., Buffalo, N.Y.; Modine Manufacturing Co., Racine, Wis.; John J. Nesbitt, Inc., Philadelphia, Pa.; Rome-Turney Co., Rome, N. Y.; The Trane Co., La Crosse, Wis.; Tuttle and Bailey, Inc., New Britain, Conn.: and Young Radiator Co., Racine. Wis.

Newly Formed Corporation To Offer Protective Covering

MILTON P. SCHREYER, president of Prima Products. Inc., New York, N. Y., national distributors of Aquella, has announced the formation of the Lithogen Corporation, which will market a new protective coating, Lithogen.

The base of the new product is a specially processed synthetic rubber, compounded with fine mineral particles and plastic resins. A summary of the findings of the United States Testing Co. will appear on the label of each can of Lithogen in the form of a certification next to the seal of the United States Testing Co. This is the first time this research organization has authorized the use of its Seal on a paint product.

Lithogen will be marketed in three formulations—smooth finish, granular finish, and floor enamel.



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Only SUPERCEDAR is of the same uniform high quality standard that quarantees guarantees evel package to contain 90% Red Heart or better, and 100% oil content which produc-es the pleasing aroma.

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100% oil content Suggest Cedar Lined Closets to Every Home Builder. There is Nothing Better than



ESTABLISHED 1886

More home builders are specifying cedar lined closets today than ever-and Brown's SUPERCEDAR is nationally advertised to thousands of new home prospects, architects and builders.
SUPERCEDAR closet lining is
surfaced, tongue and grooved,
ready to put on with no waste.
Packaged and sealed with the
Geo. C. Brown label and guarantee, famous since 1886.

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LARGEST MANUFACTURERS OF AROMATIC RED CEDAR IN THE WORLD

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There are many outstanding features about the new Norge N-407 gas range-

The exclusive Concentrator burner, for instance, is the highest development in a top-of-range gas cooking unit. It promotes quicker cooking and better cooking, at the same time stretching the purchasing power of the owner's gas dollar.

These ranges are successfully used in housing projects everywhere. A special Specification Sheet for architects and engineers is available ... write to Norge Division, Borg-Warner Corporation, Detroit 26, Michigan.





MODEL B-649 REFRIG-ERATOR—Designed to give 50% more refrigerated storage in the same floor space as prewar 4. Powered by famous Rollator.

VERTICAL ELECTRIC WATER HEATER—12-to 82-gallon capac-ities; equipped with exclusive Mag-nesium Rod; pro-tected by 10-year guarantee.



TABLE-TOP ELECTRIC WATER HEATER—30-, 40-gal. capacities; same features as vertical models; ideal for kitchen, laubdry room,





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Merchandising Kit —"How to Make More

Your Name....

Profits from Tileboard."

Announce Formation Of New Gas Equipment Corporation

FORMATION of Affiliated Gas Equipment, Inc., with headquarters in Cleveland, Ohio, is announced by Lyle C. Harvey, president and general manager of the new corporation.



LYLE C. HARVEY

The organization represents the combining of three manufacturing companies, the Bryant Heater Co. of Cleveland, the Day & Night Manufacturing Co. of Monrovia, Calif., and the Payne Furnace Co. of Beverly Hills, Calif.

Five plants are merged in this organization and will manufacture a complete line of gas-fired equipment for both heating and water heating in the residential, commercial and industrial markets.

President Lyle Harvey, who is general manager and a director of AGE, is also general manager of the Bryant Heater Division. He is a past director and executive committee member of the American Gas Association, and a director and past president of the Gas Appliance Manufacturers As-

New Labor Laws Will Not Affect New York Builders

IN HIS annual report to the Building Trades Employers' Association. William G. Wheeler, secretary, said that in his opinion the building industry in metropolitan New York will continue to be free of costly jurisdictional strikes, regardless of any new legislation enacted by Congress.

Commenting on the lack of injunction provisions to prevent jurisdictional strikes in the Administrationsupported bill now being debated, Wheeler expressed confidence that contractors and organized labor will continue to recognize a formula for the mediation or arbitration of trade disputes without work stoppage which has been in effect for many years. This formula was initiated jointly by the BTEA and the Building and Construction Trades Council representing 200,000 AFL building craftsmen.

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FASCO * AUTOMATIC KITCHEN VENTILATOR

 Profit from the big sales appeal of clean, cool, comfortable kitchens...and still have money left in your kitchen ventilator budget. Install FASCO Automatic Kitchen Ventilators...the ventilator with all the top quality features . . . at an amazing low price.

Changes air in average kitchen every three minutes! Quickly, quietly whisks out heat, odors, grease and dust . . . without drafts. Attractive ... easy to clean. Just one control operates both outside door and fan.

Models available for all size kitchens, all wall thicknesses.

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*Standard Equipment in 9000 LEVITT HOMES! . . and in many other developments by America's leading builders.



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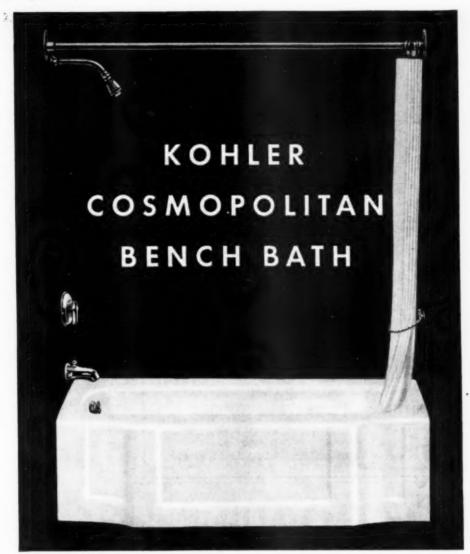
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KOHLER ENAMEL OVER NON-FLEXING IRON . . . CAST FOR RUGGED STRENGTH AND RIGIDITY

The Kohler bath, with its time-tested base of iron, has the proper weight and solidity to assure a firm, tight installation. The Kohler enamel fuses securely to the iron surface, forming a smooth, lustrous coat that is acid-resisting, easy to clean and extremely durable. The fact that the iron base is non-flexing minimizes danger of cracking and crazing. Home owners appreciate the freedom

from noise and the sturdiness of Kohler baths. Kohler fixtures and fittings have a quality reputation confirmed by 76 years of outstanding satisfaction in American homes and institutions. Every Kohler product is made of thoroughly tested

materials—and designed and manufactured to give practical, reliable service. Kohler Co., Dept. 5-H, Kohler, Wisconsin.

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Co., Inc.

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27" BLADE BIG CHIEF KUTTER

NEW ANGLE GAUGE can be easily attached or detached by the operator and enables him to quickly cut shingles with precision to desired degree of angle.

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handle. Rear
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10½" back from
shingle stop and
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handle, giving
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sizes of nail
holes.

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NOTCHER is
newly designed
from high grade,
heat treated steel
and is hollow
ground, with
teeth that are
milled to notch a
much smoother
and faster cut.



LOOK FOR THE BRAND



This Cutter is light in weight, weighing only 26 lbs.

• Castings are of high grade aluminum alloy •
LENGTH overall—31" • HEIGHT—17" • Has two
high grade tool steel heat-treated cutting blades, 27"
long, capable of making a single cut up to 27 inches.

ALL INQUIRIES ANSWERD PROMPTLY

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TRI-STATES BUILDING MATERIALS CO.

Farm Booklet Aids Lumber Promotion

A publication of West Coast Woods Promotion The Farm Book—A Guide to Better Farming with Better Buildings continues to play an important part in the organization's promotional campaign in behalf of all grades of lumber, according to Paul E. Kendall, manager.

The book, prepared by the Doane Agricultural Service, St. Louis, has been distributed by retail dealers since its issuance last year. Priced at \$1.00, it is being furnished to retailers at special prices by West Coast Woods Promotion, 1410 S.W. Morrison St., Portland, Ore.

Company Changes Name

THE Taylor Manufacturing Co. of Milwaukee, Wis., is now the Wright Manufacturing Co. Change of the company name was announced by Thomas F. Millane, president, who also announced the appointment of Bertram R. Scheff as its general sales manager.

HI

Change of the company name was in recognition of the company's product, Wright Rubber Tile, which has been on the market twenty-eight years.

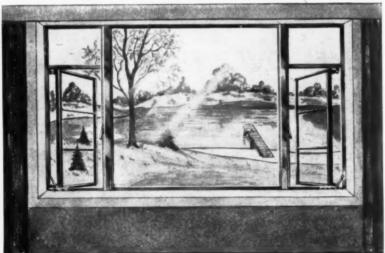
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EASY OPERATION

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Magic Chef
GAS RANGE



30" wide-Series 600

FOR LIMITED SPACE, LIMITED BUDGETS



36" wide-Series 700



39" wide-Series 2400 & 1300



36" wide-Series 1200



62" wide-Series 1000



20" wide-Series 500



43" wide-Series 400 & 460

OTHER Products: combination, coal and wood ranges, oil stoves and heaters, oil furnaces.

Architects and builders have been asking for a range 30 inches wide. Here it is! Its smart styling will add to the appearance of any apartment or small home kitchen. The 600 Series Magic Chef range is low-priced; yet it has most of the features of deluxe Magic Chef models.

Magic Chef ranges have the advantages of quality and appearance plus these belpful selling factors:

- More women cook on Magic Chef than on any other range.
- 2 Surveys show more women plan to buy Magic Chef than any other gas range.
- 3 Magic Chef is the most widely advertised gas range in America.
- 4 Magic Chef is the

· For Finest Homes ...

The complete Magic Chef line includes ranges for large homes. For example, the 62-inch Series 1000 has six top burners, two large ovens, high-level broiler and a 23" x 24" griddle. Styled in satin-finish stainless steel.

Hotels and Restaurants, too!

America's best hotels and restaurants have equipped their kitchens from Magic Chef's line of heavy duty gas cooking equipment.

FOR COMPLETE DETAILS SEND FOR OUR ARCHITECTS AND BUILDERS FILE

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CELOTEX IS ON THE MARCH

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advertising drive in its history to increase

business for builders and contractors

and the entire building industry

1940

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1949 bids fair to be the year of decision for the building industry. Everyone knows there is a big job to be done if the high level of building activity is to be sustained and advanced.

Celotex has made its decision! As our contribution to the cause, we are going all out in '49 with the greatest advertising and sales promotion campaign in Celotex history.

And you, Mr. Builder, are one of the key figures in the whole program.

In a series of smashing 2-PAGE SPREADS that will appear in the SATURDAY EVENING POST, BETTER HOMES AND GARDENS, SUCCESSFUL FARMING, PROGRESSIVE FARMER, and other leading magazines—

Celotex will tell millions of Americans that they not only can but should build or remodel now!

This compelling advertising is designed to stimulate building activity and directly benefit builders, contractors, and everyone else who is a part of the great building industry.

Yes, Celotex is on the march in full force in 1949. We feel certain that you, the builders and contractors of America, will join with us—and that together, we will forge ahead to a new level of achievement and prosperity for the building industry, and ourselves!

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Build Strong for the Future . . . Build with



BUILDING MATERIALS

INSULATING BUILDING BOARDS . ASPHALT COATED INSULATING SHEATHING . INSULATING LATH
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GYPSUM WALLBOARD . GYPSUM LATH, PLASTER . CEMESTO . INSULATING SIDINGS

ACOUSTI-CELOTEX . FLEXCELL EXPANSION JOINTS . HARD BOARD



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JOINT SYSTEM

PERF-A-TAPE

*T. M. Reg. U. S. Pat. Off.

IT'S the method perfected by the makers of famous SHEETROCK* gypsum wallboard, thus is backed by years of dry-wall know-how. So, play safe-use PERF-A-TAPE* reinforcement and cement . . . made exclusively by . . .

United States Gypsum

For Building . For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint





- Economical operation, less heat loss
- Greater efficiency
 - Elimination of condensation
- Quicker control of room temperature
- Ability to heat with lower temperature in system

*Zonolite is a registered trademark of Zonolite Company



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Available with or without bronze covers that completely hide springs, as shown above.

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Smooth, positive action, accurate balance plus seal I against draft, dust, moisture. the

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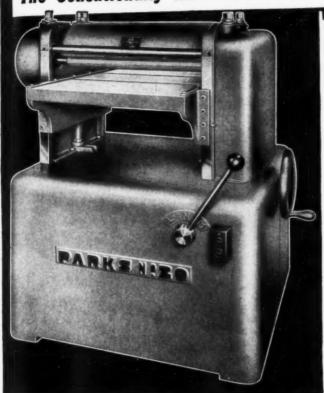
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Here is a modernly designed, rugged, high-speed, low-priced planer that is ideally suited for every shop and industrial plant requiring a quality surfacer. The Parks No. 20 Planer has a four-knife cutterhead with a speed of 3600 R.P.M. and offers two feed speeds - 20 and 40 F.P.M., and 40 and

80 F.P.M. Write for complete descriptive literature.

> The PARKS Heavy-Duty 12" x 4" Planer

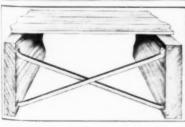
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is made of half-hardened channel steel with flanged ends that hold firmly so floors can't buckle or

bulge. Shrinking or sagging of joists tightens instead of loosens Sta-Tite bridging. Easily installed with only one nail required in each end. High efficiency for low cost!

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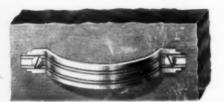
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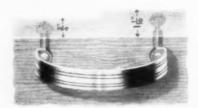




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No. 707 Cabinet Door Latch



No. 706 Cabinet Door Latch



No. 106 Door Pull

Manufacturing

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